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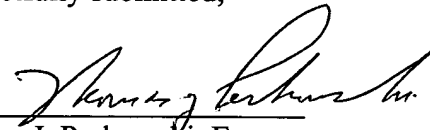
REMARKS

The Amendments to the Specification are provided for the correction of errors of a clerical nature and to ensure correspondence between the Specification and Formal Drawings filed herewith.

The Commissioner is authorized to charge any fee deficiencies to Deposit Account No. 16-1340.

Respectfully submitted,

Dated: April 29, 2004

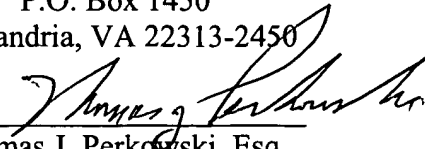


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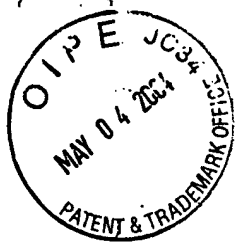
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Thomas J. Perkowski, Esq.

Dated: April 29, 2004



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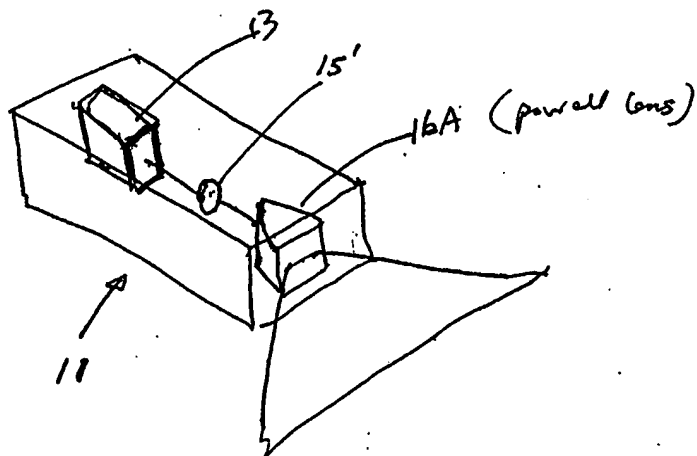


FIG. 1G.16A

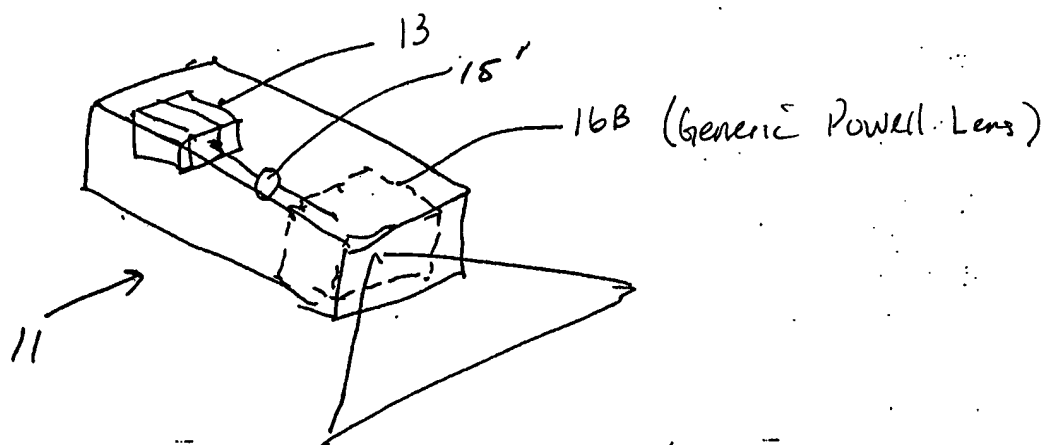
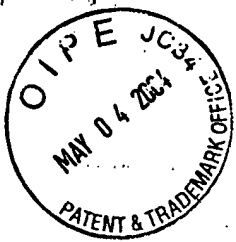
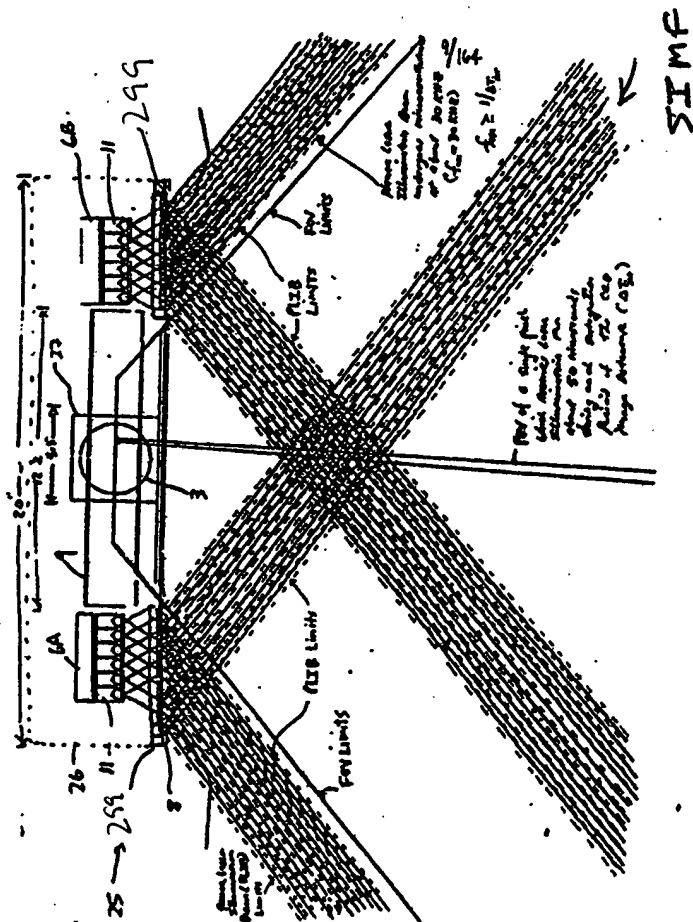


FIG. 1G.16B

• PLIM of
powell lens

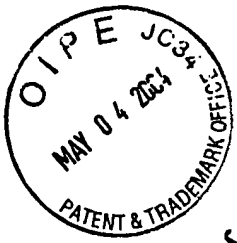


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Light to object illumination

FIG. 1I 20A



Sixth Generalized Method of
Reducing Speckle-Noise Patterns
at Image Detection Array
of the IFD Subsystem

(SIMF)

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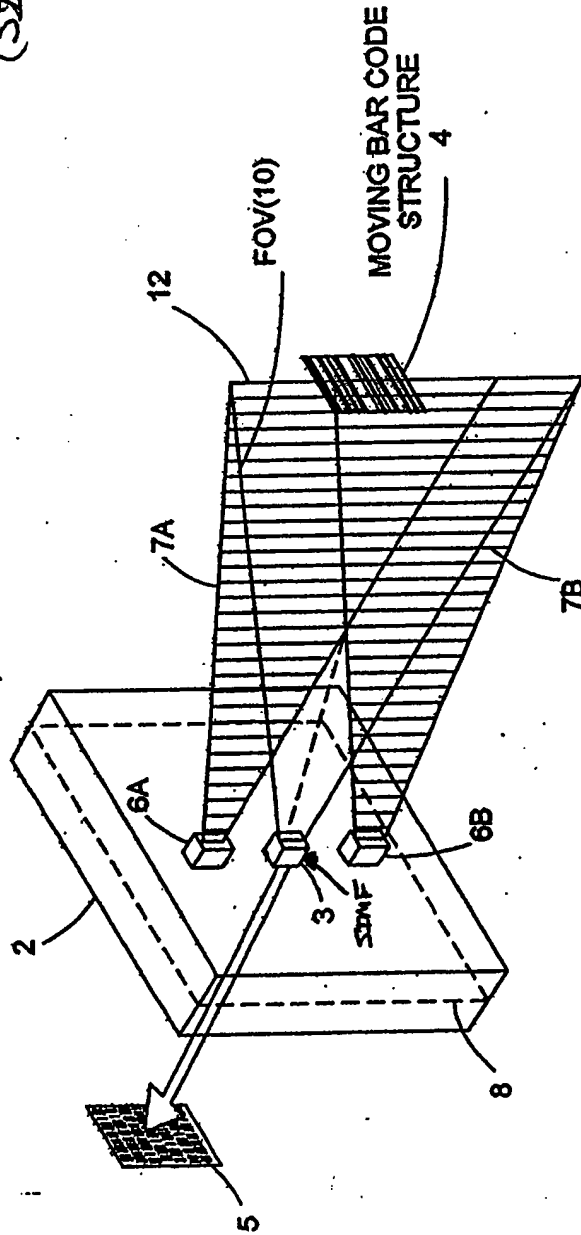


FIG. 1I 22



EIGHTH

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**EIGHT GENERALIZED METHOD OF REDUCING THE SPECKLE PATTERN
NOISE OBSERVED IN PLIIM-BASED IMAGING SYSTEMS**

A

Use a PLIIM-BASED Imager to produce a series of consecutively captured digital images of an object over a series of photo-integration time periods of the PLIIM-Based Imager, wherein each digital image of the object includes a substantially different speckle noise pattern produced by natural oscillatory micro-motion and/or forced oscillatory micro-movement of the Imager relative to the object during operation of the PLIIM-Based Imager.

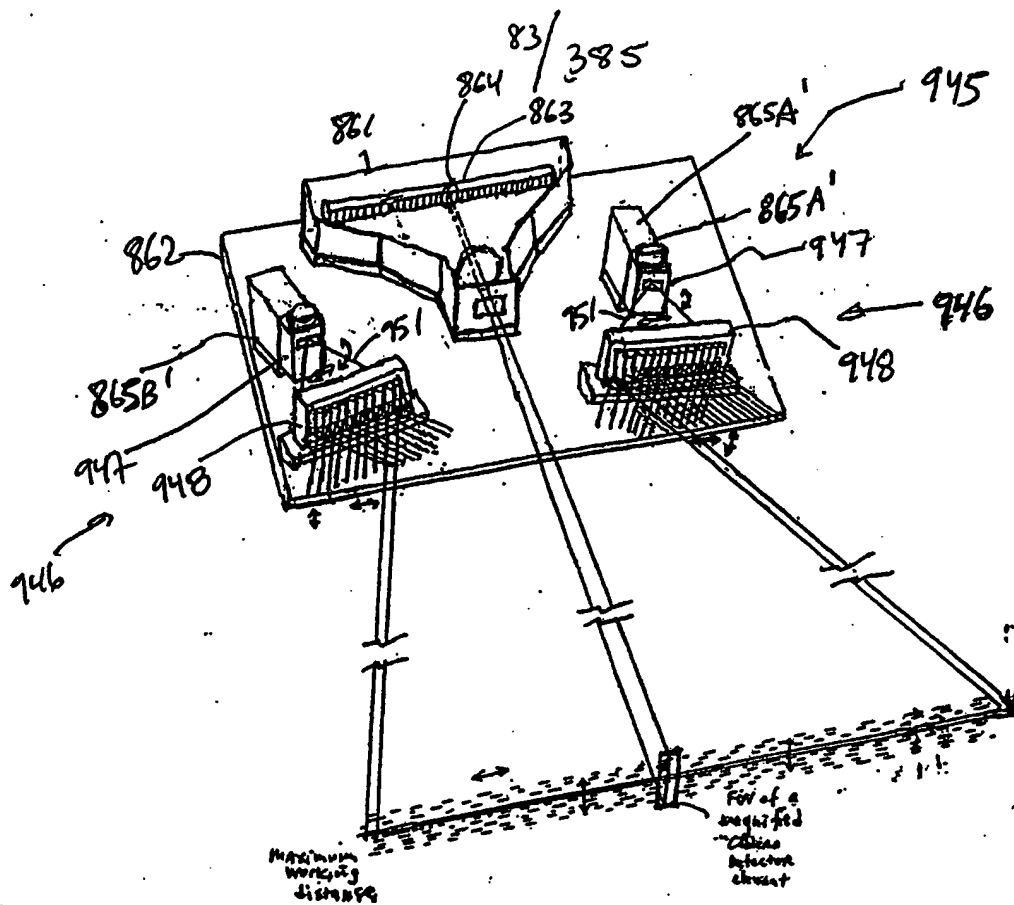
B

Store the series of consecutively captured digital images of the object in buffer memory within the PLIIM-Based Imager.

C

Add relatively small (e.g. 3x3) windowed image processing filters to the additively combine and average the pixel data in the series of consecutively captured digital images so as to produce a reconstructed digital image having a speckle noise pattern with reduced RMS power.

FIG. 1124D



Literal and
Transverse
Representation of FIG

FIG.1I25I1

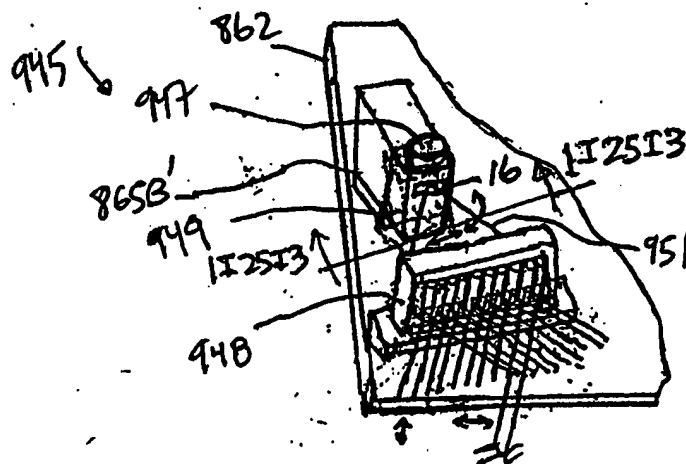


FIG.1I25I2

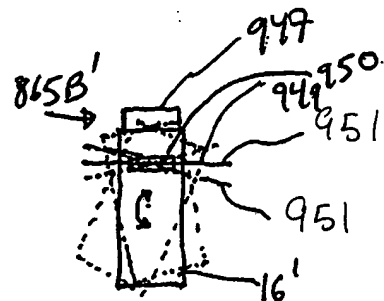
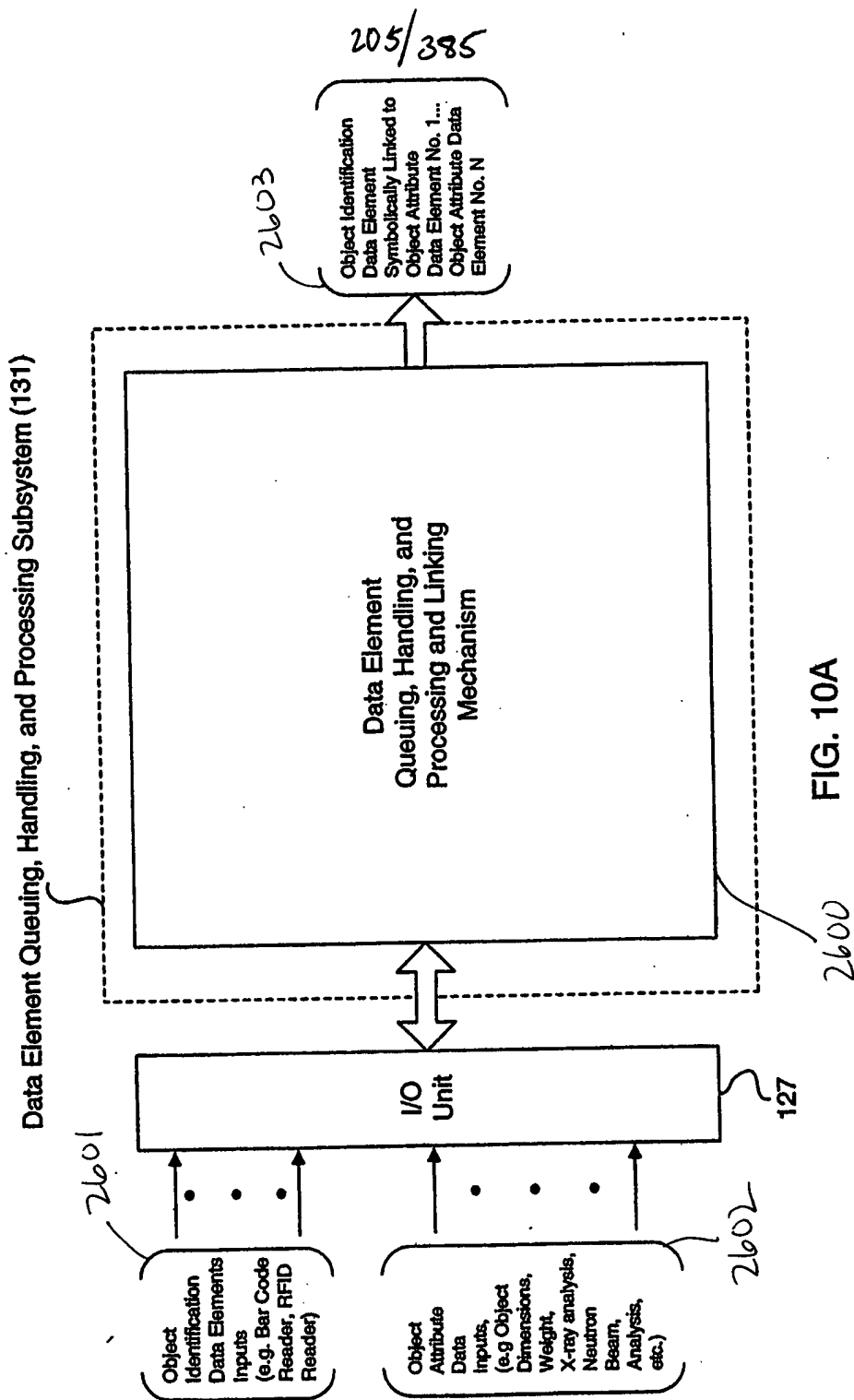


FIG.1I25I3



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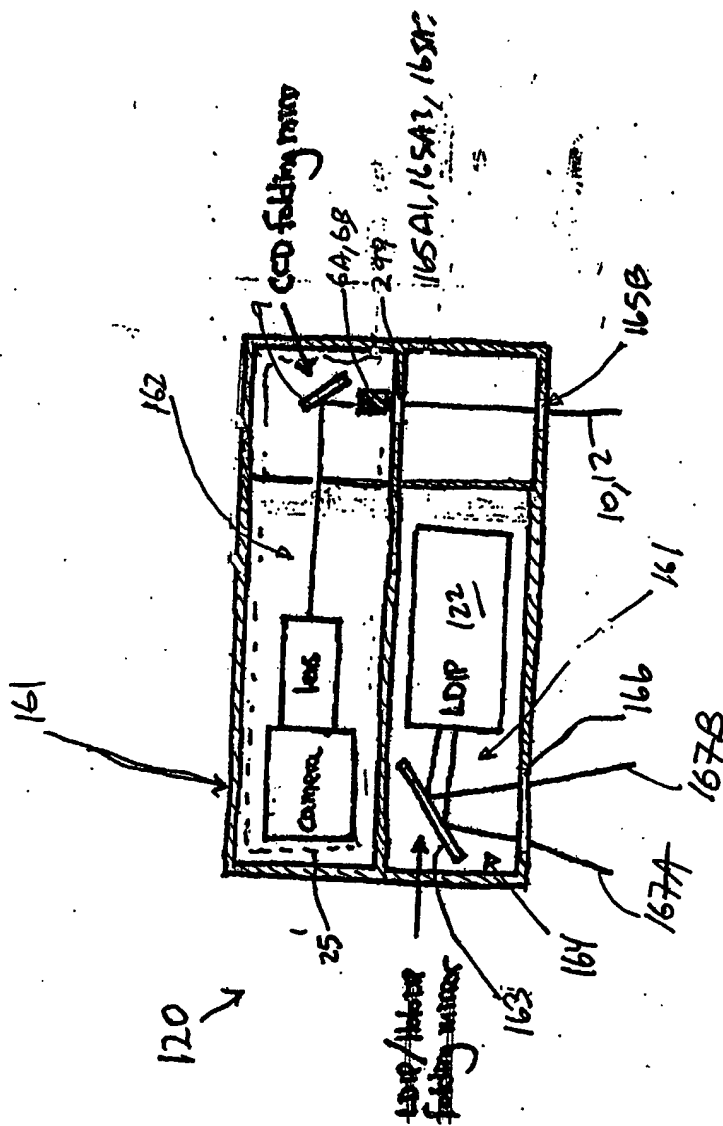


FIG. 12B



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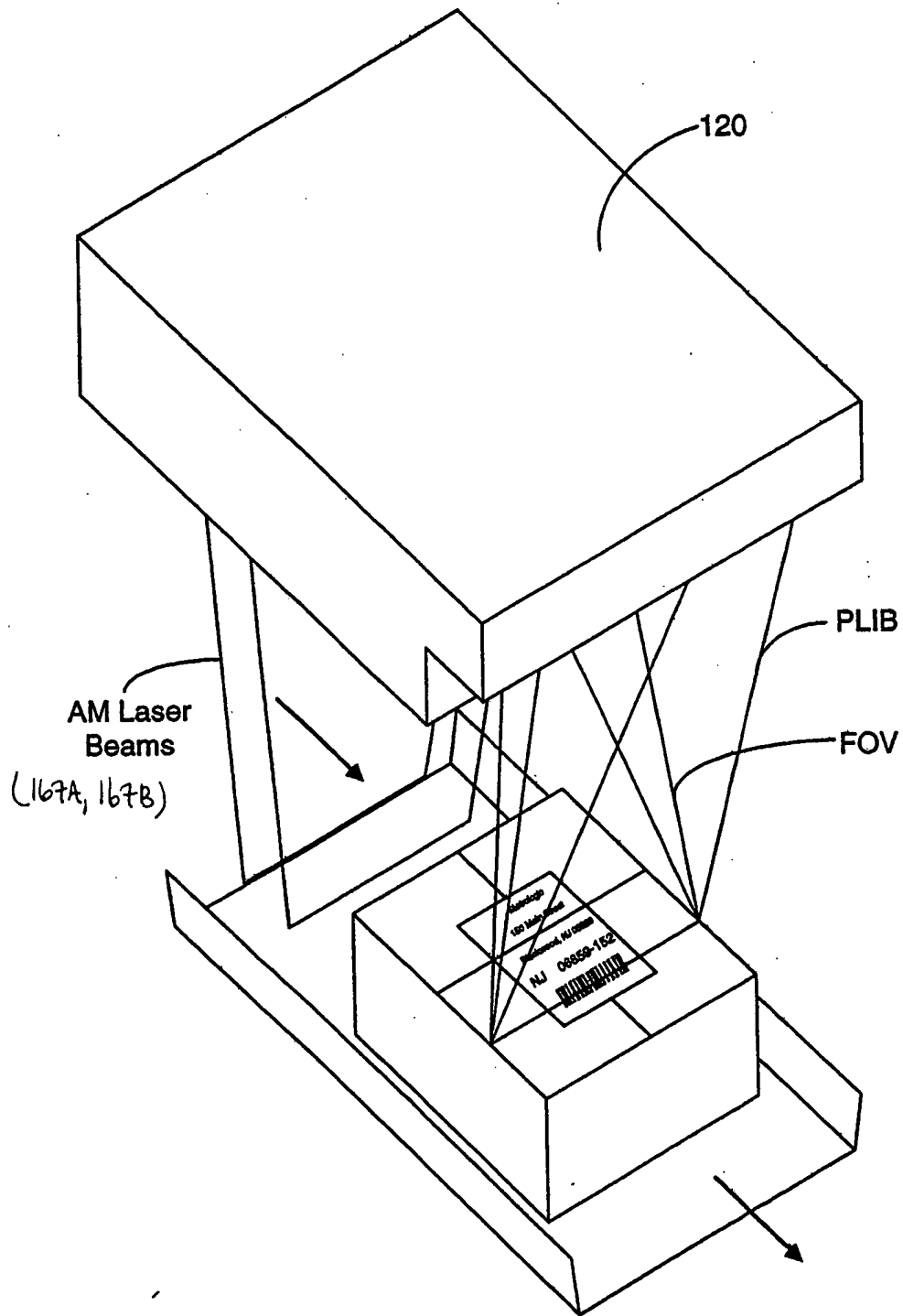


FIG. 13A

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LDIP Real Time Package Edge Detection

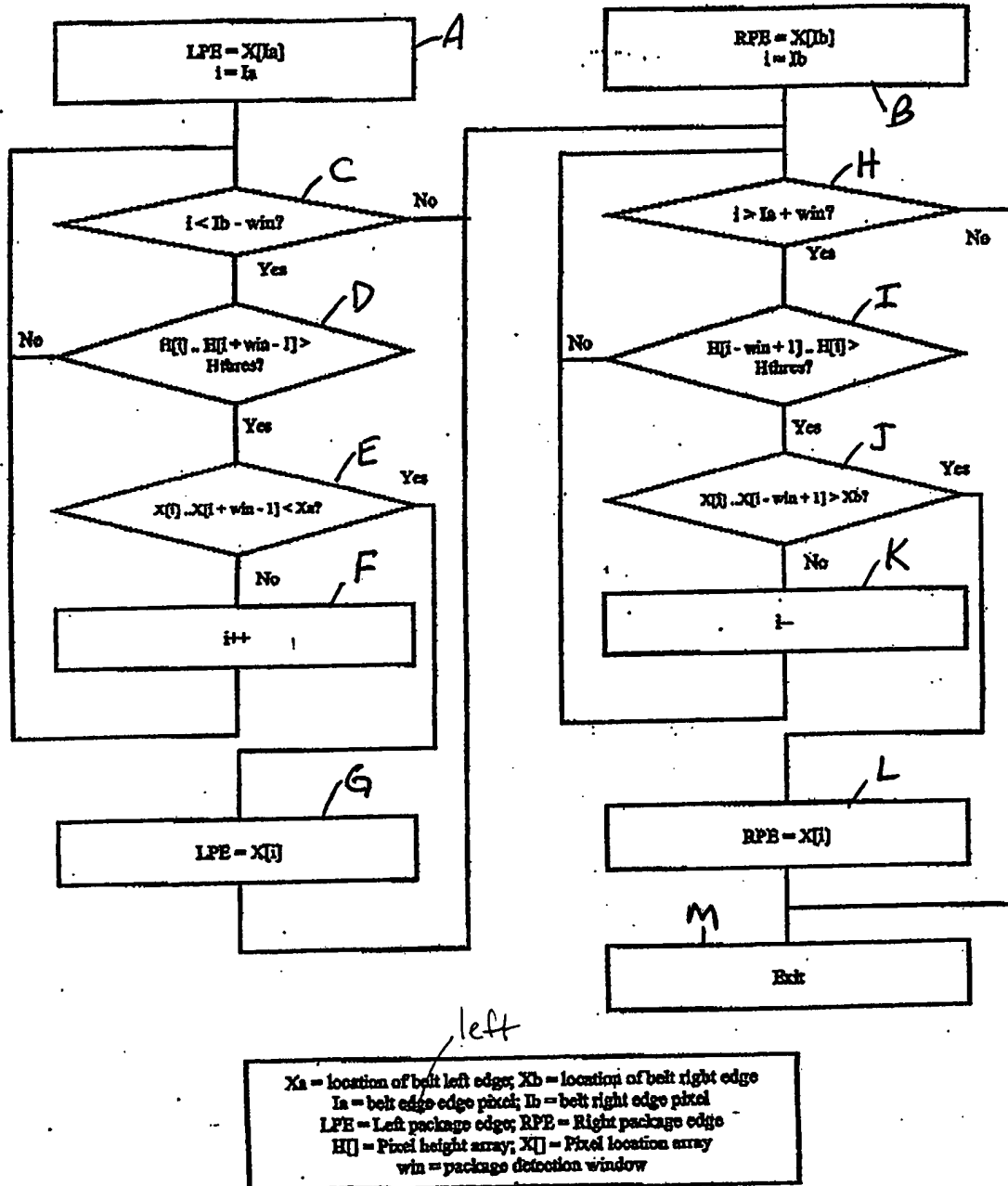
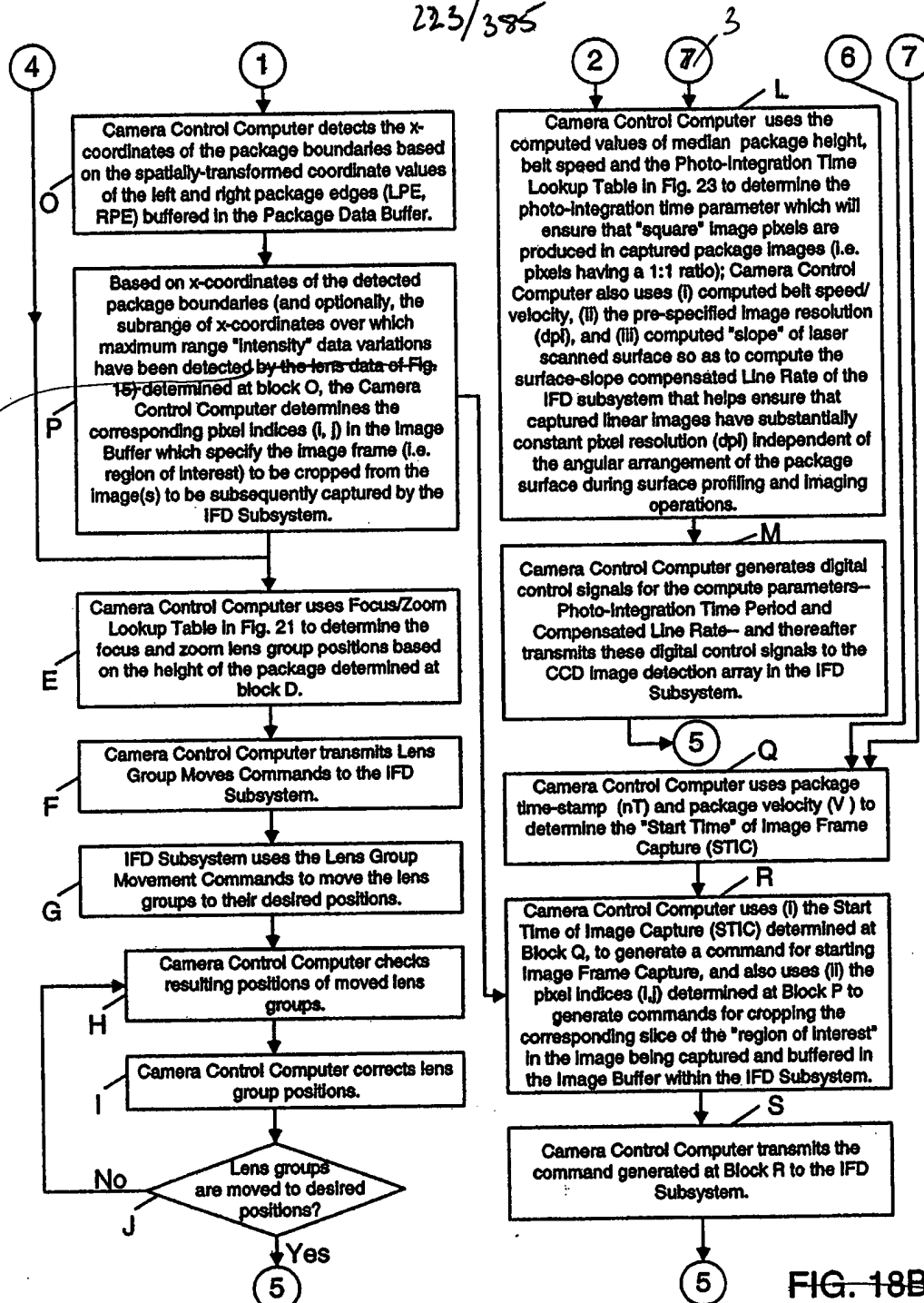


FIG. 16

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at
Block F
in Fig. 15)





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LASER

METHOD OF COMPUTING OPTICAL OUTPUT POWER FROM CASE-
DIODES IN PLANAR LASER ILLUMINATION ARRAY (PLIA) FOR
CONTROLLING CONSTANT WHITE LEVEL IN IMAGE PIXELS CAPTURED
BY PLIIM-BASED LINEAR IMAGER

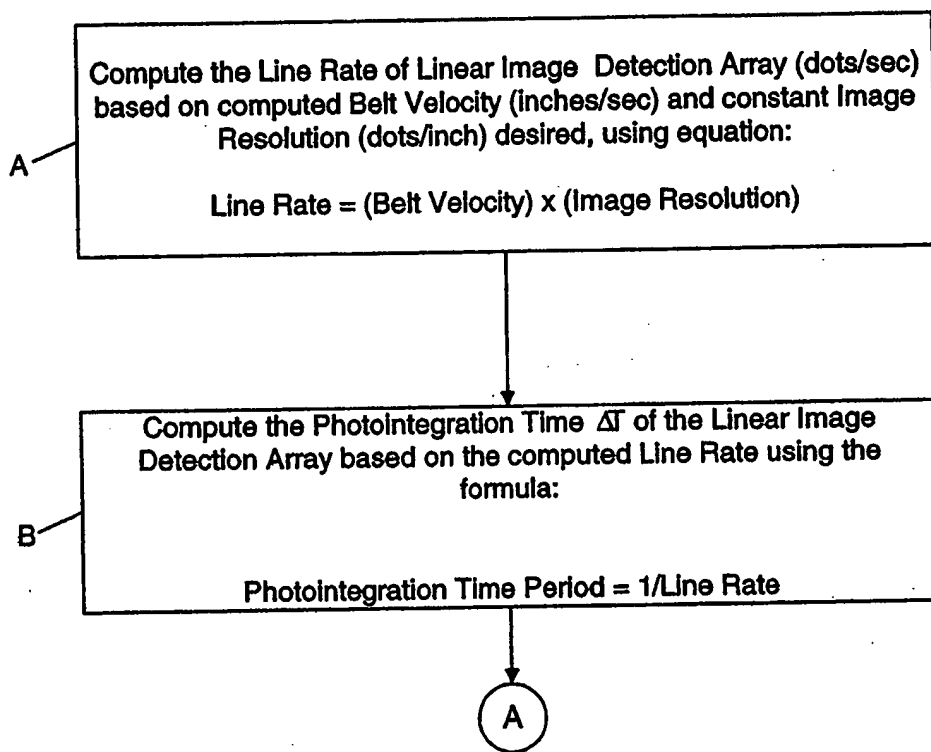


FIG. 18C1



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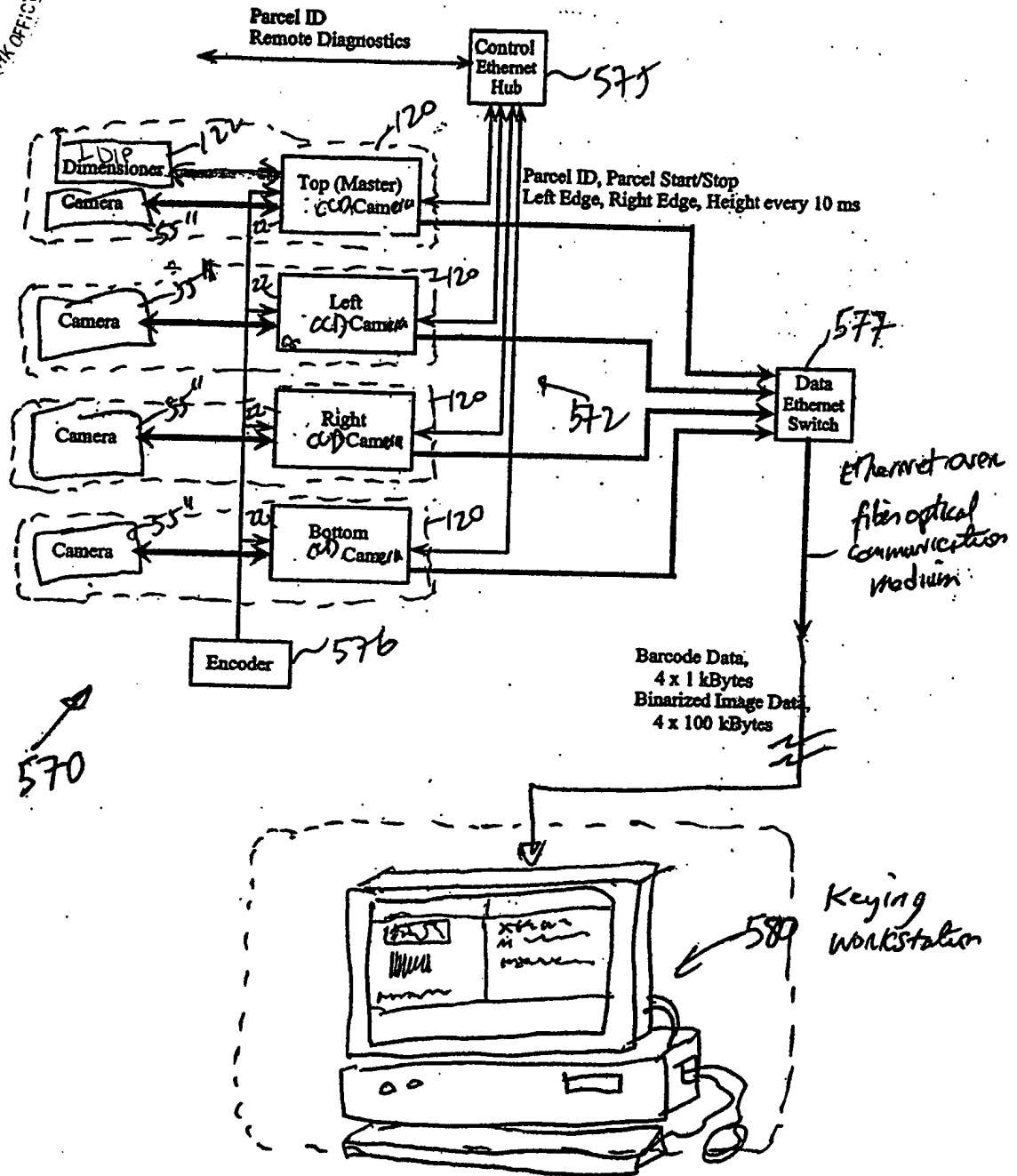
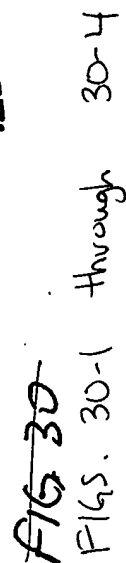


FIG. 29



~~F1630~~



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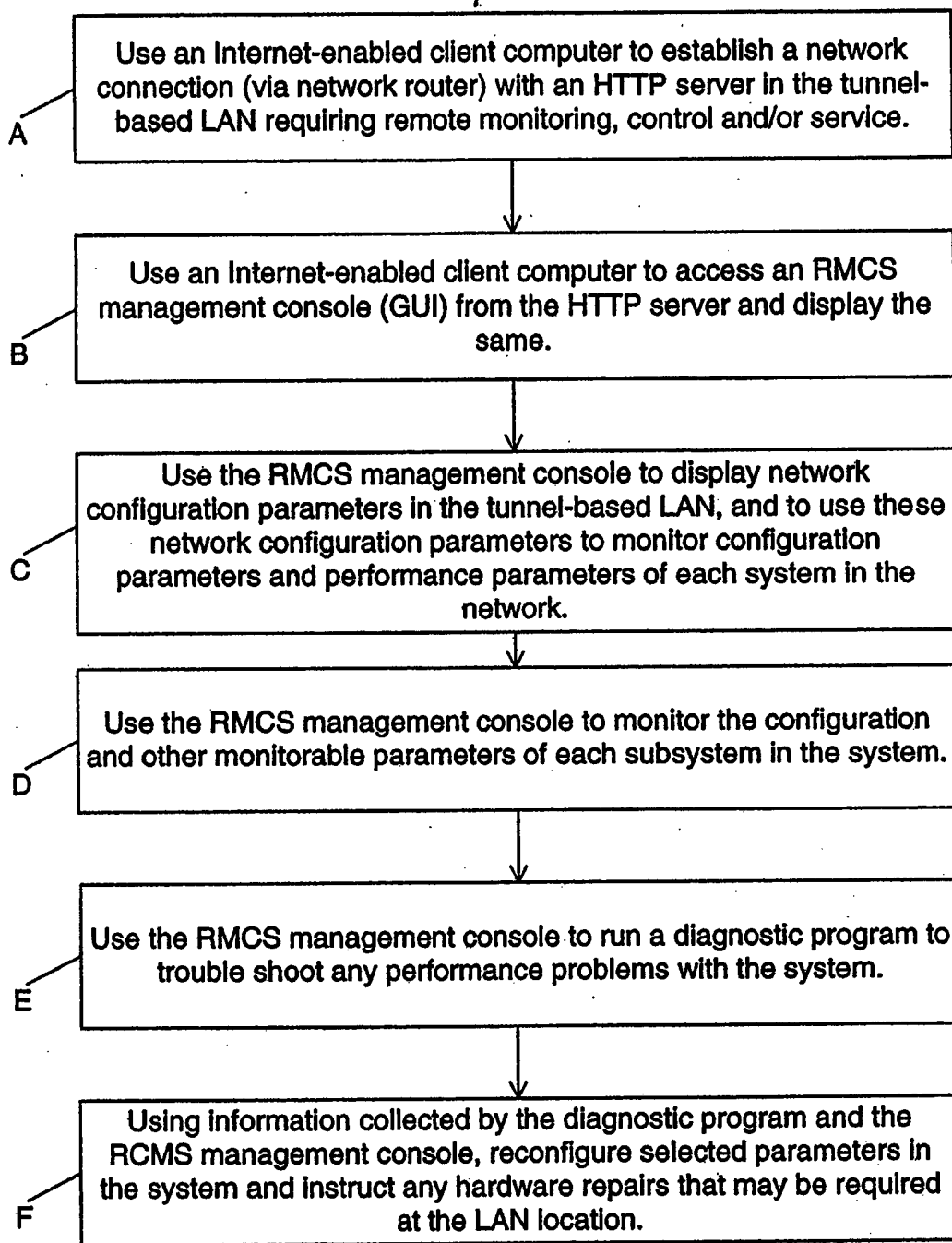


FIG. 30D1

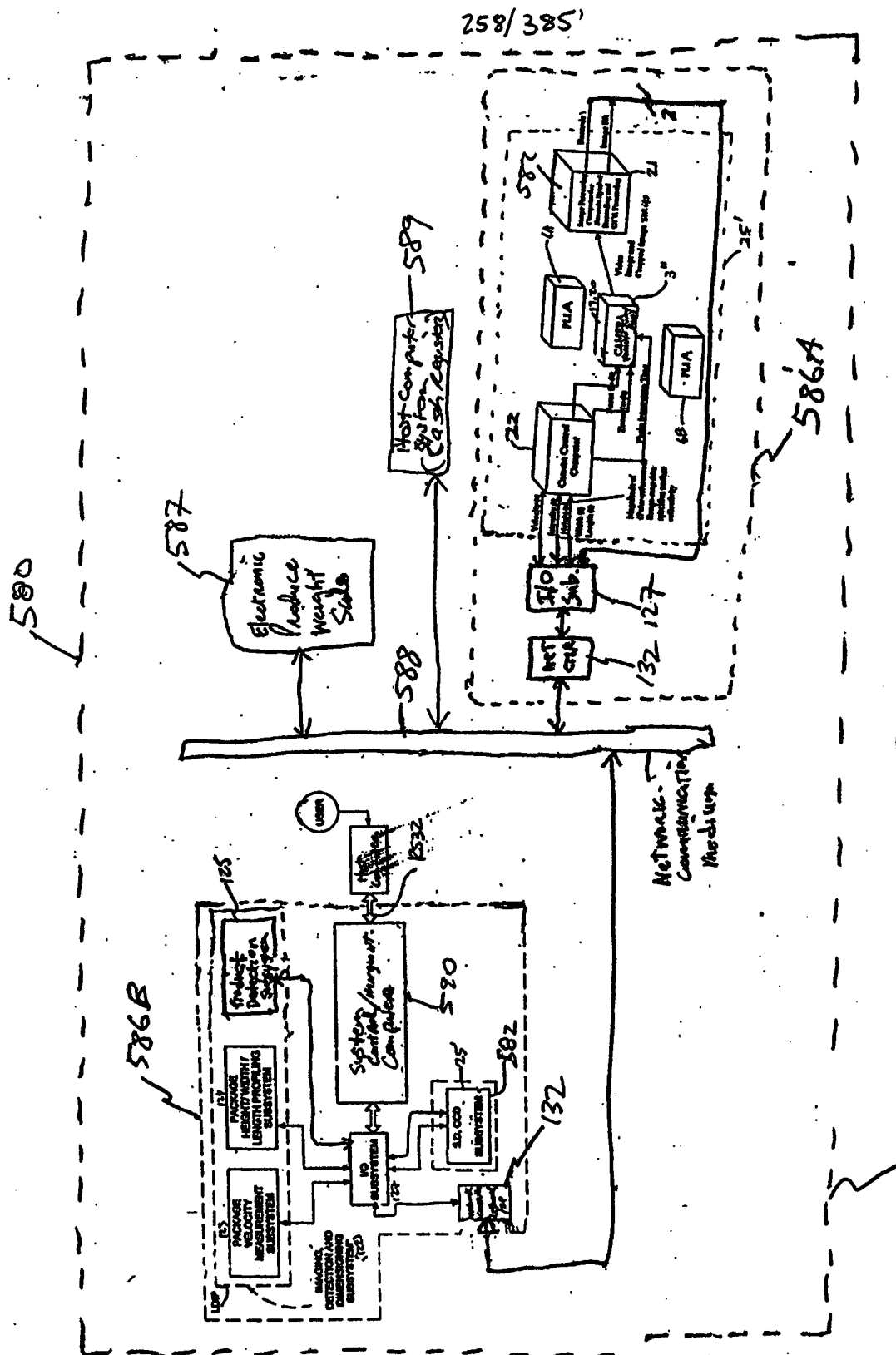


FIG. 33C
FIGS. 33C1 and 33C2

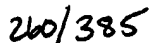
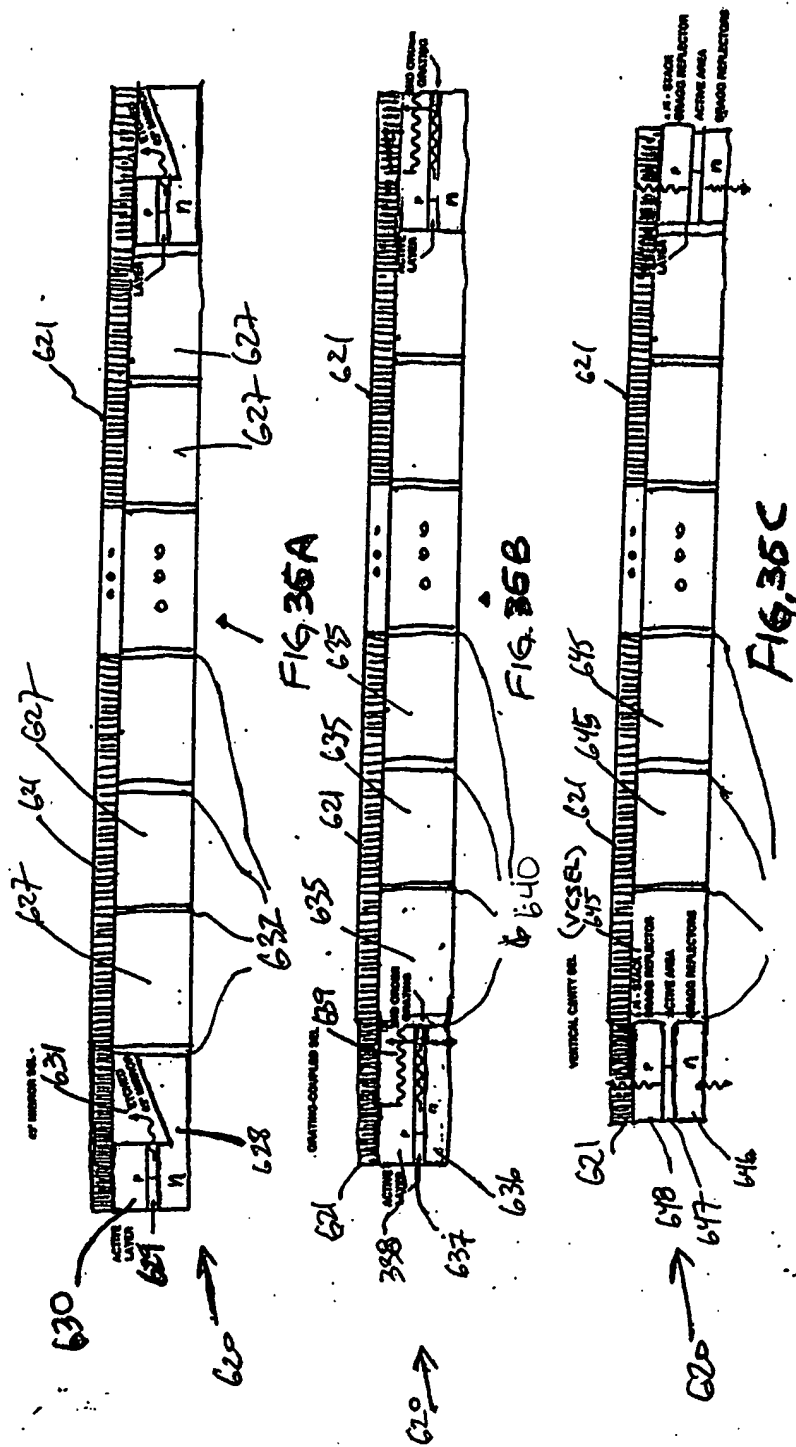


FIG 34C

FIGS. 34C1 and 34C2

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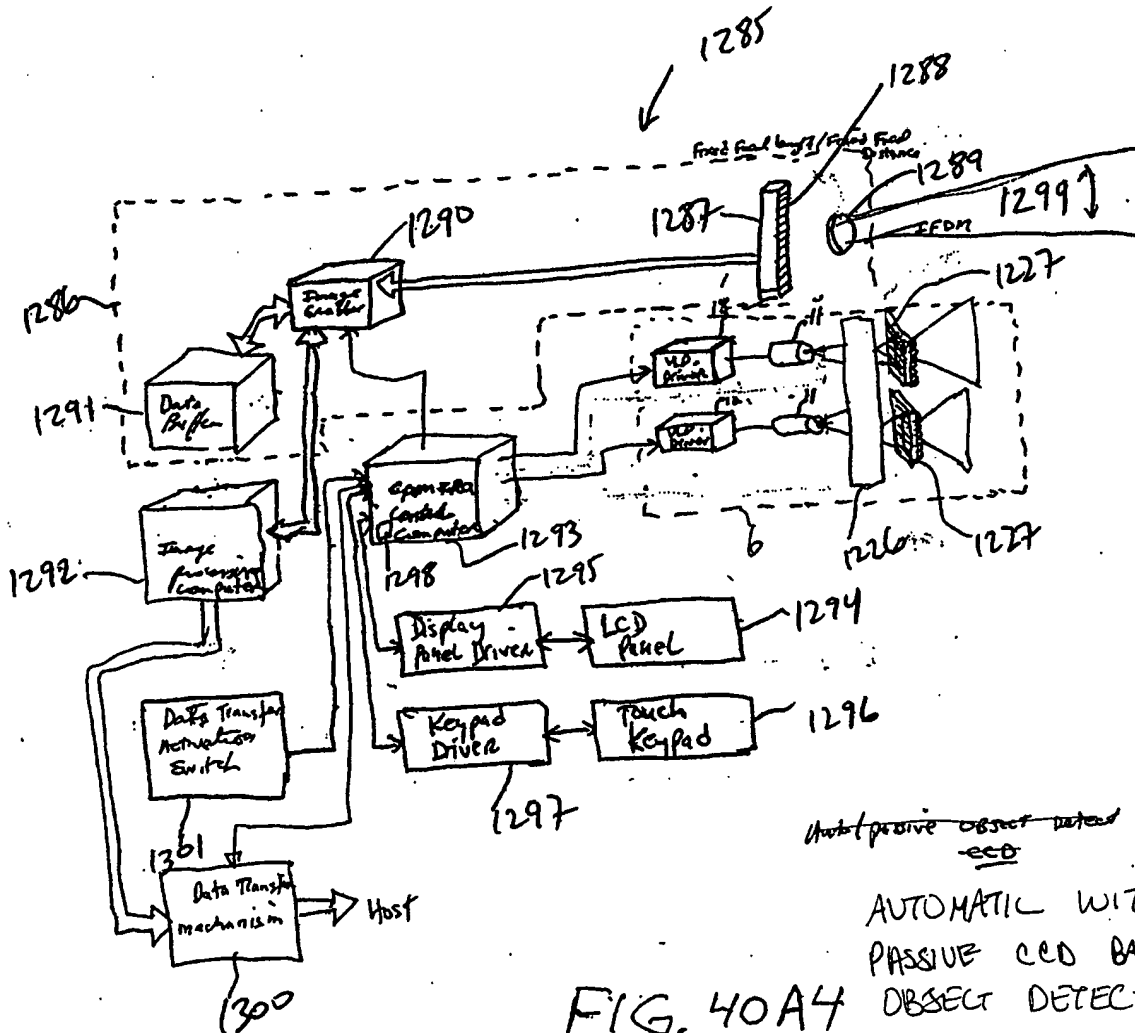
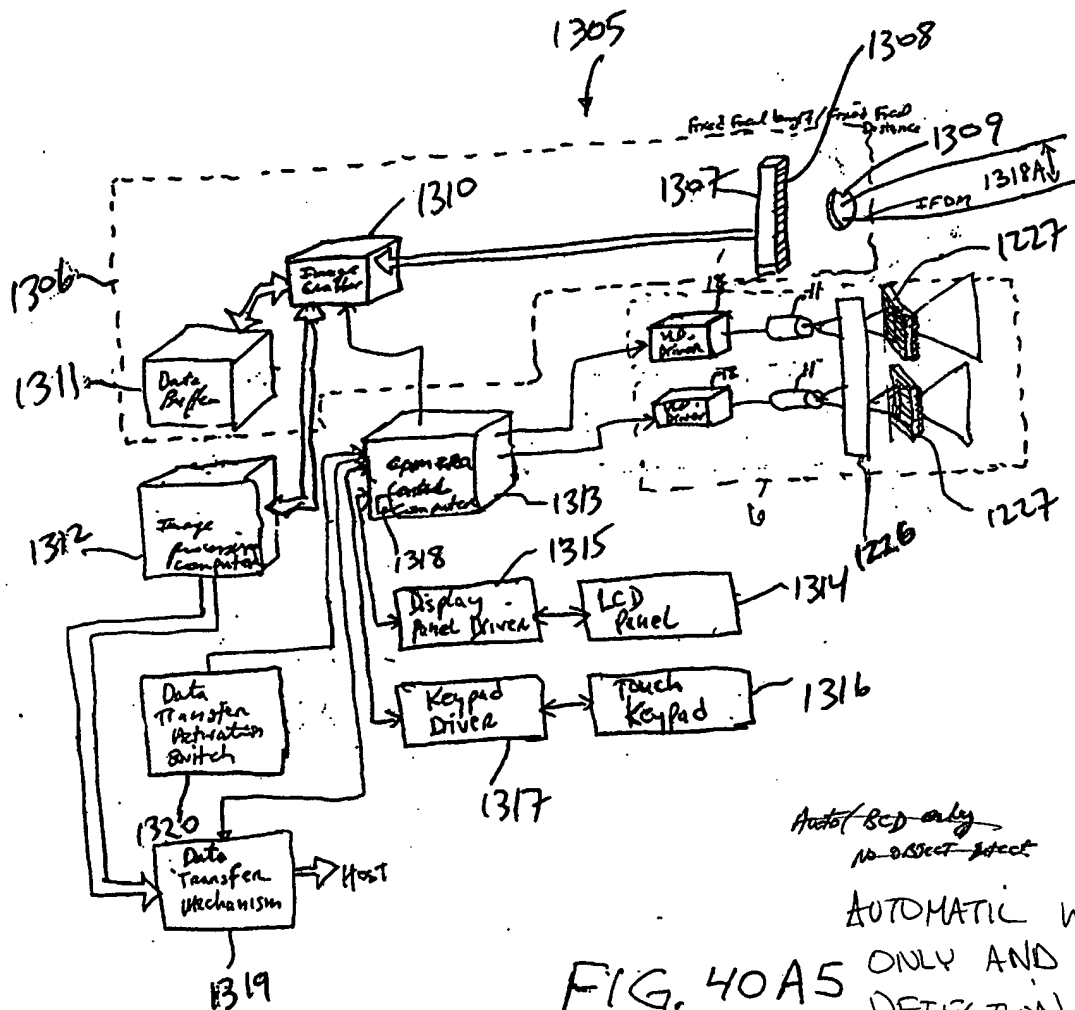


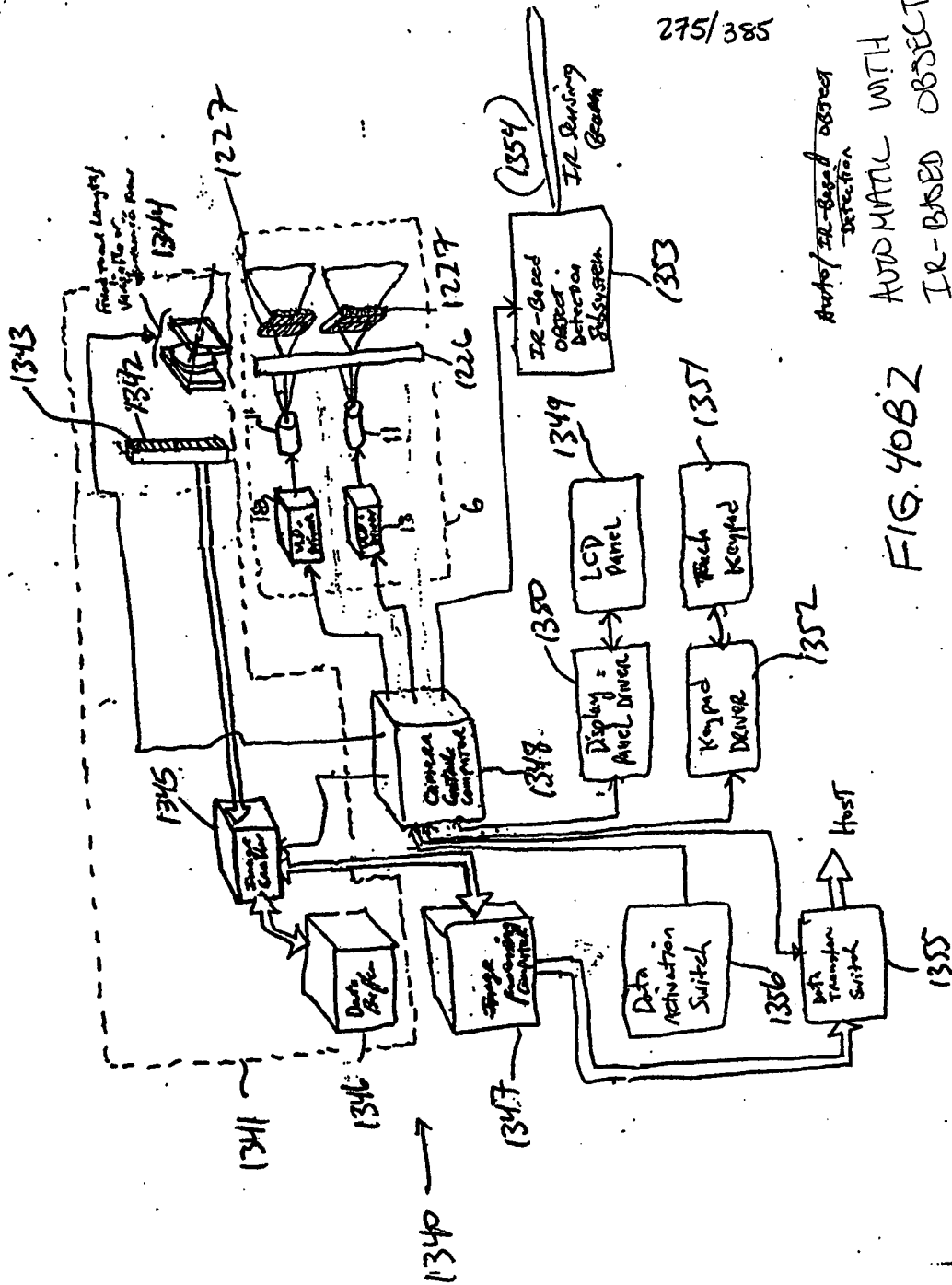
FIG. 40A4

AUTOMATIC WITH
PASSIVE CCD BASED
OBJECT DETECTION

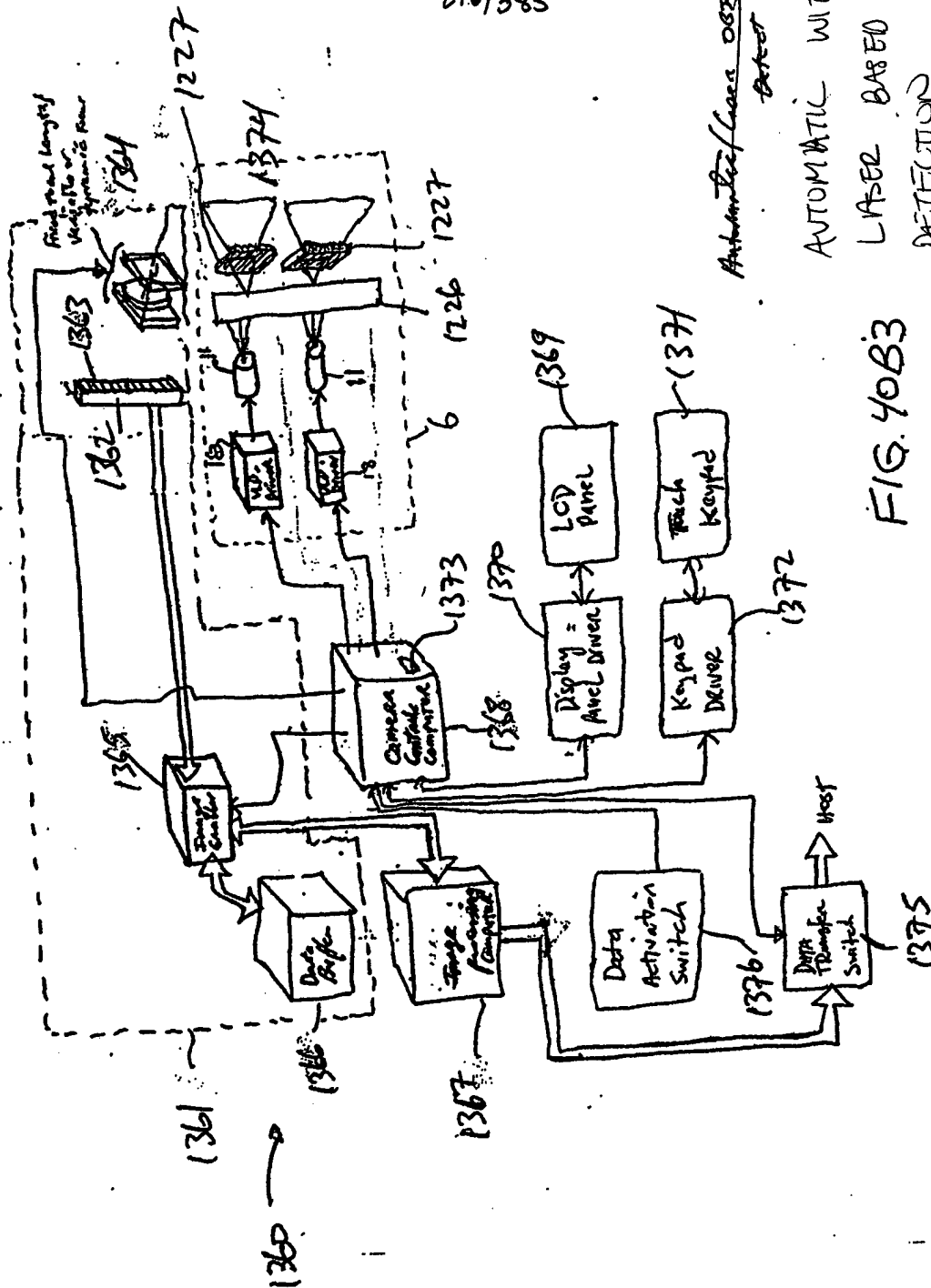


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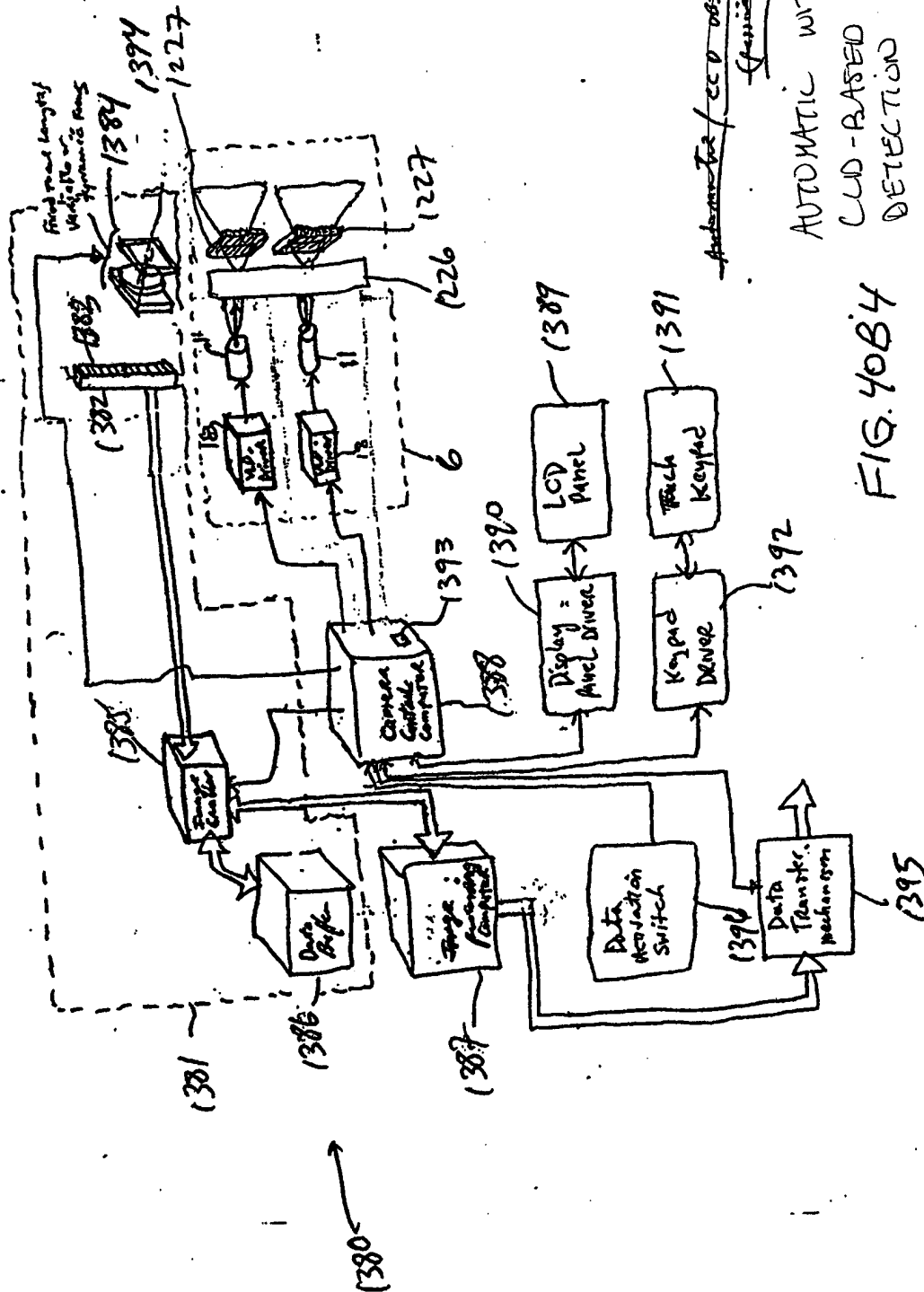


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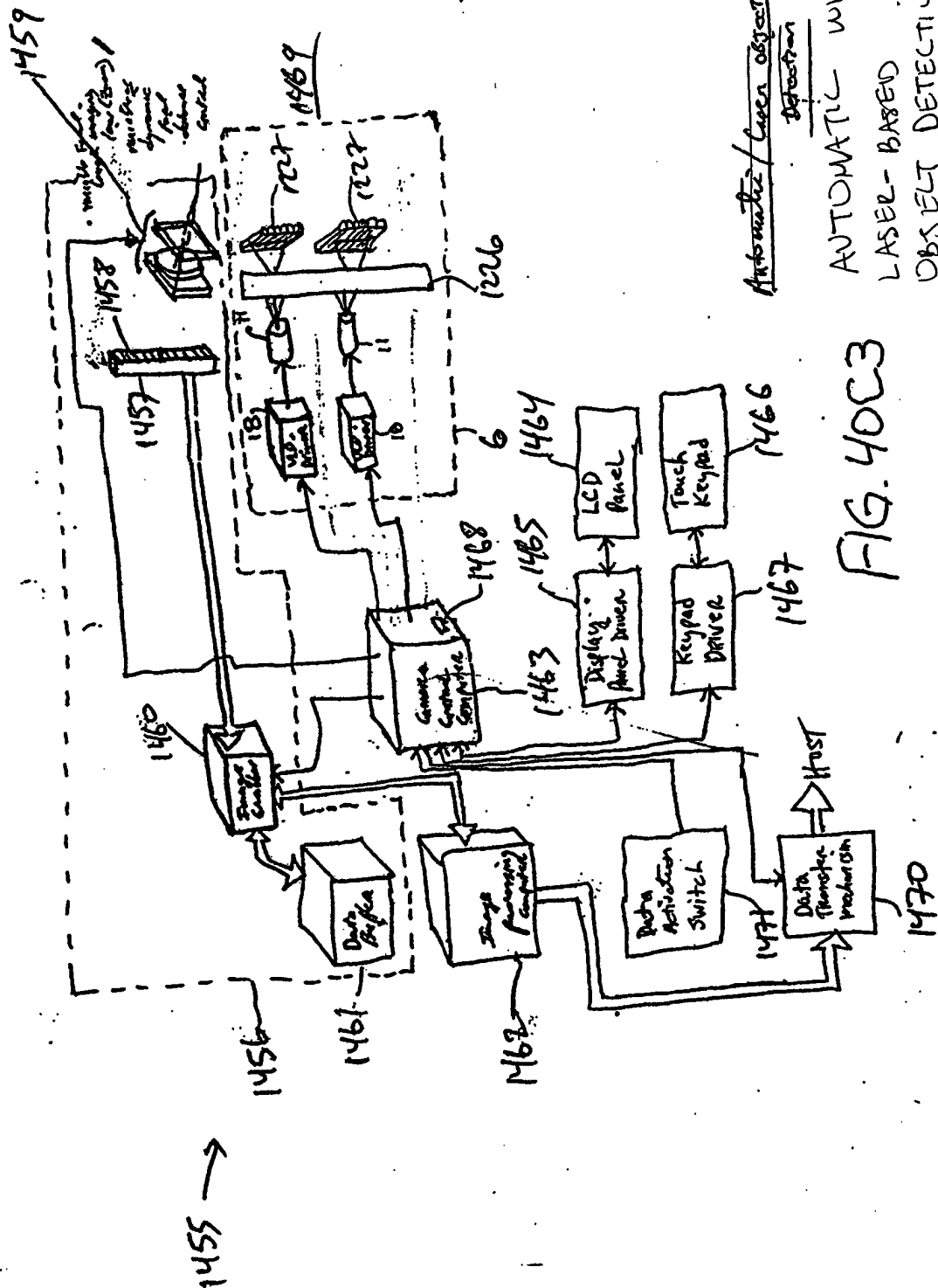


Automatic for CCD object detect.
(passive)

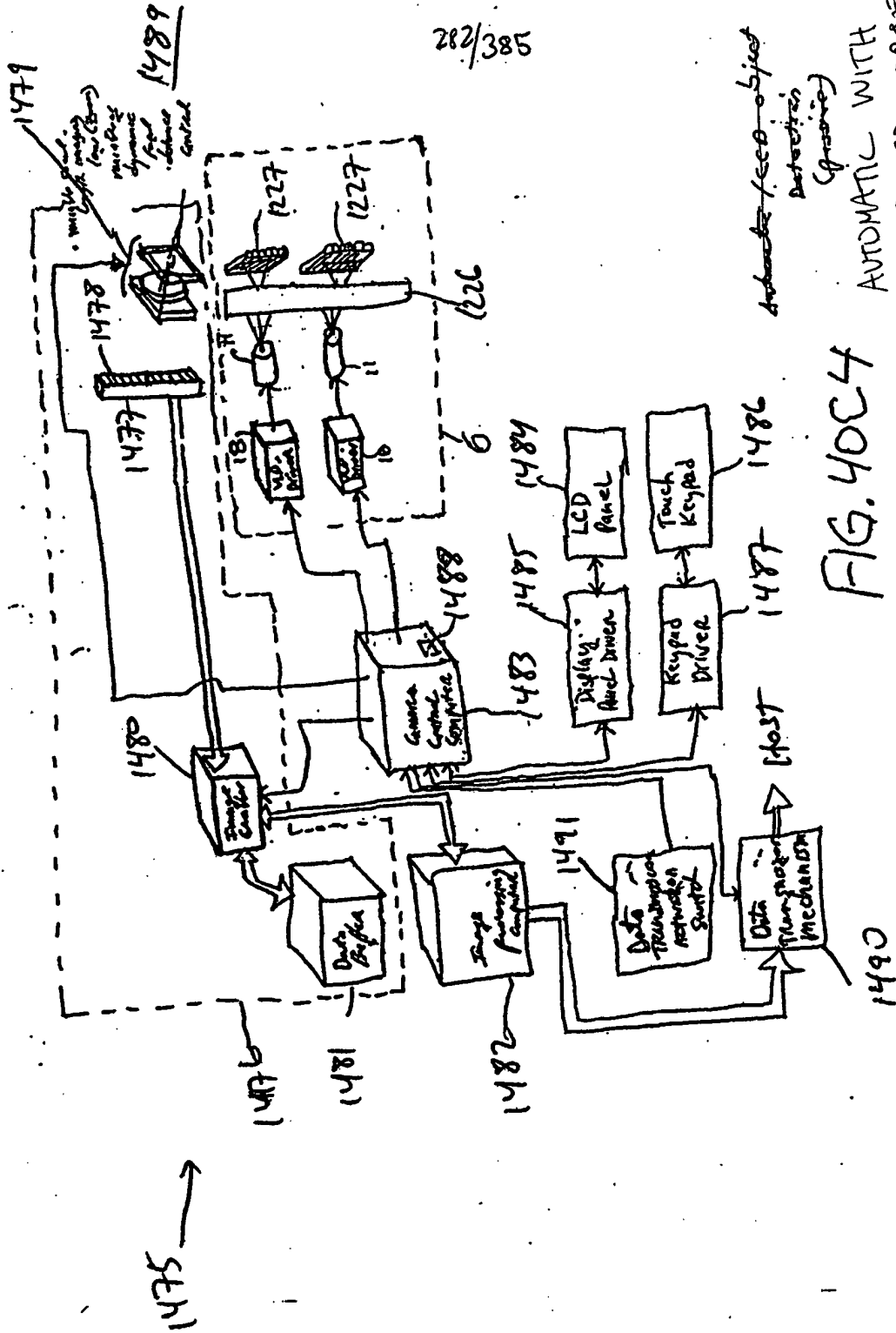
AUTOMATIC WITH PASSIVE
LUD-BASED OBJECT
DETECTION

FIG. 40B4

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Antenna/Feed Object
 Detection System
 (passive)

FIG. 40C4

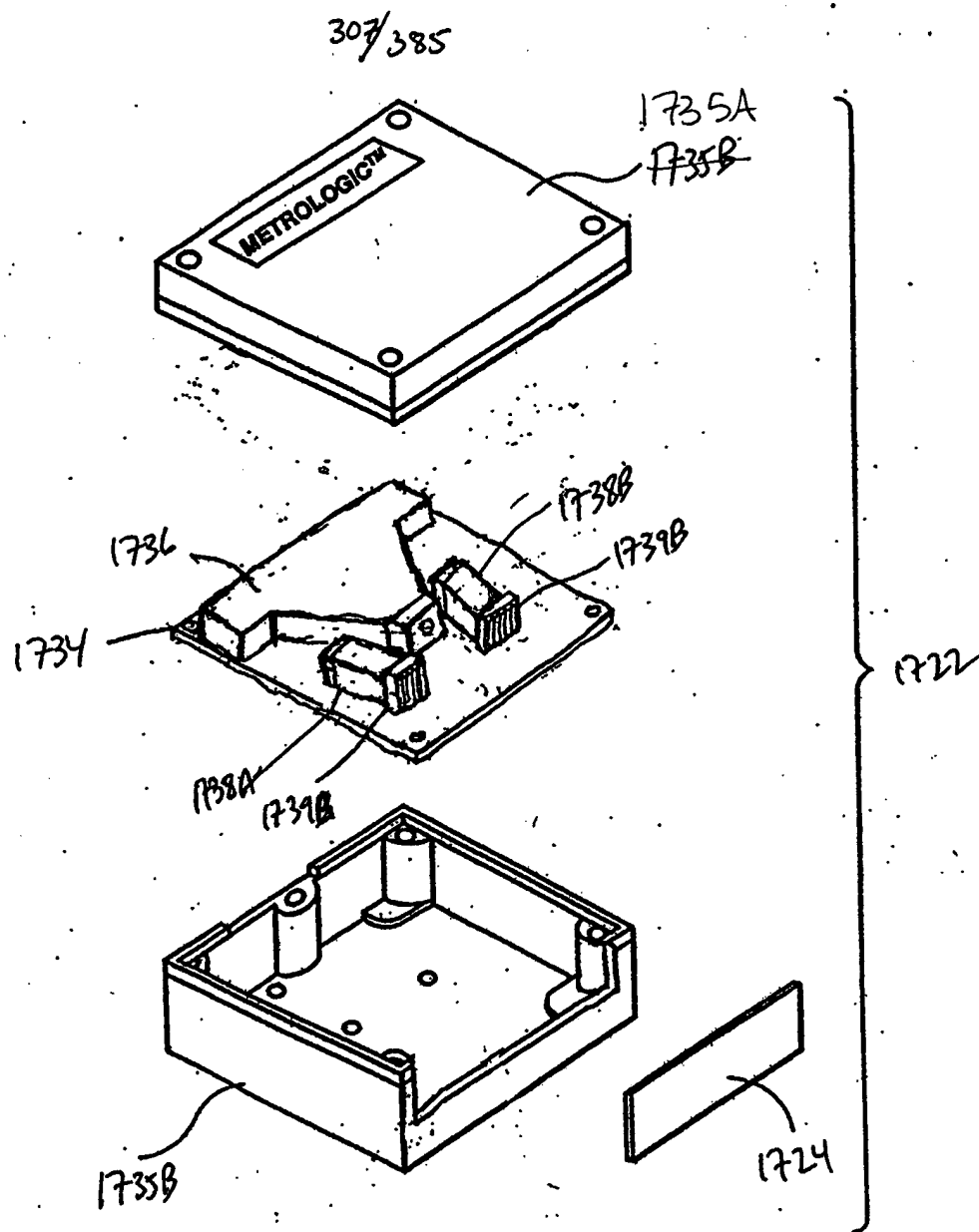


FIG. 48B



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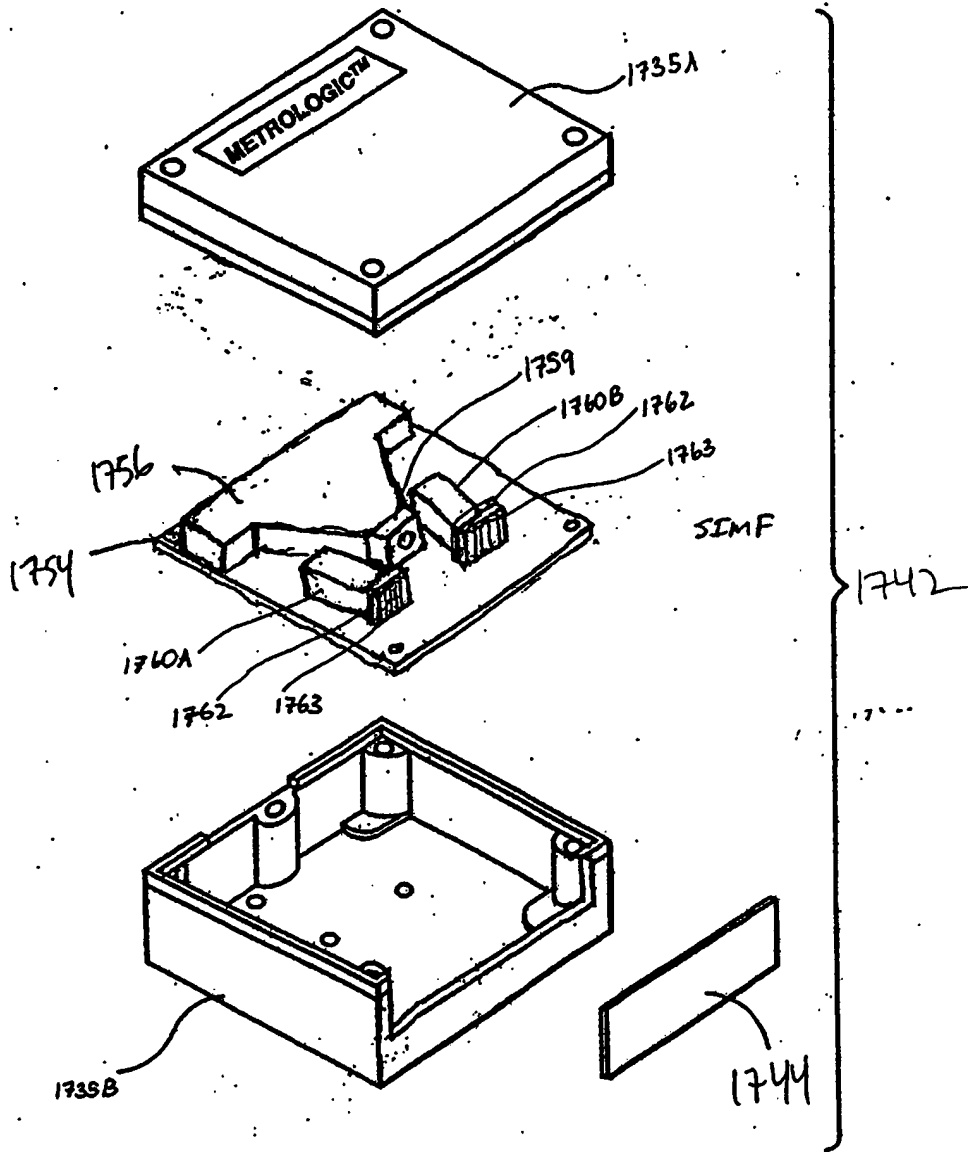


FIG. 49B

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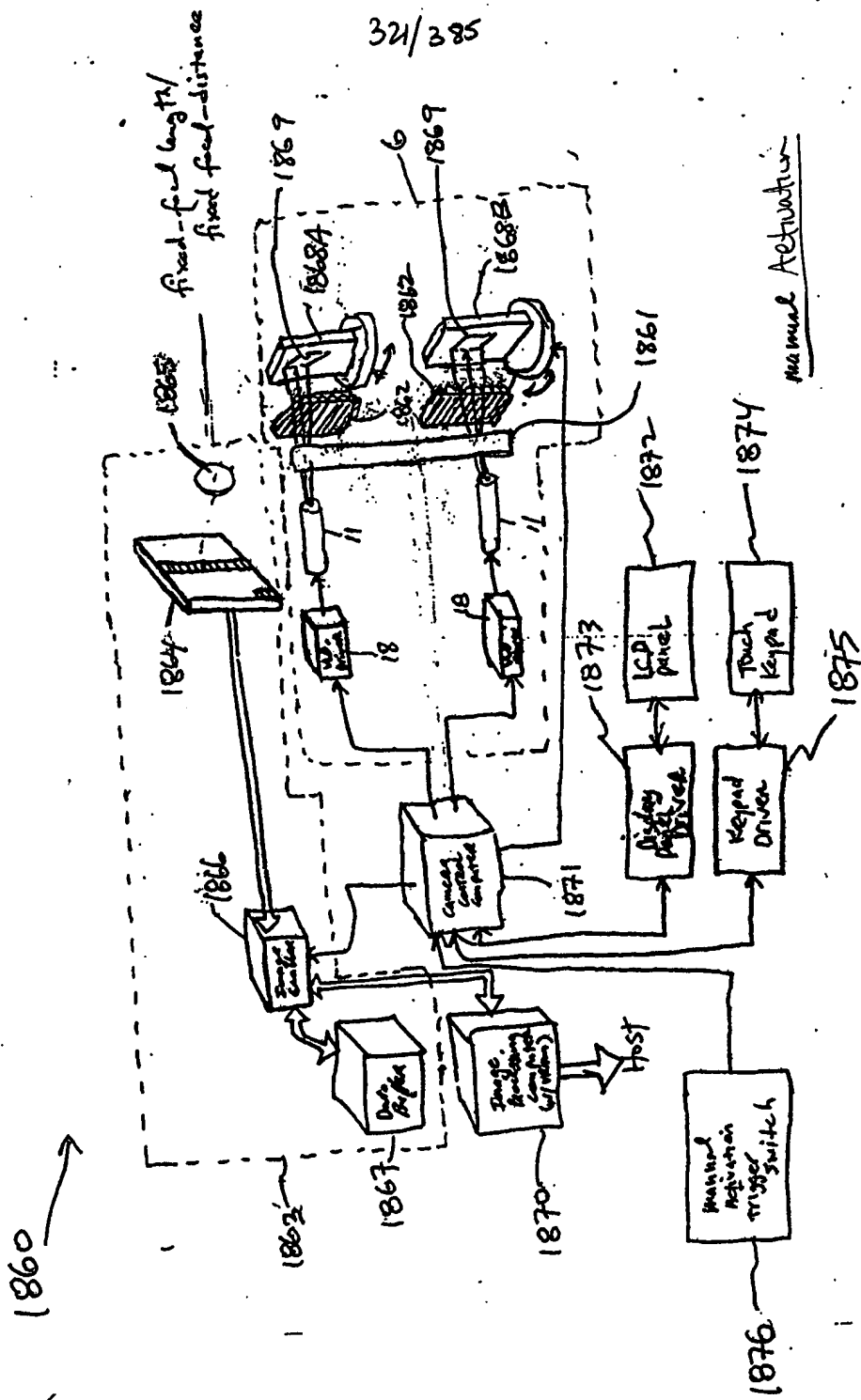
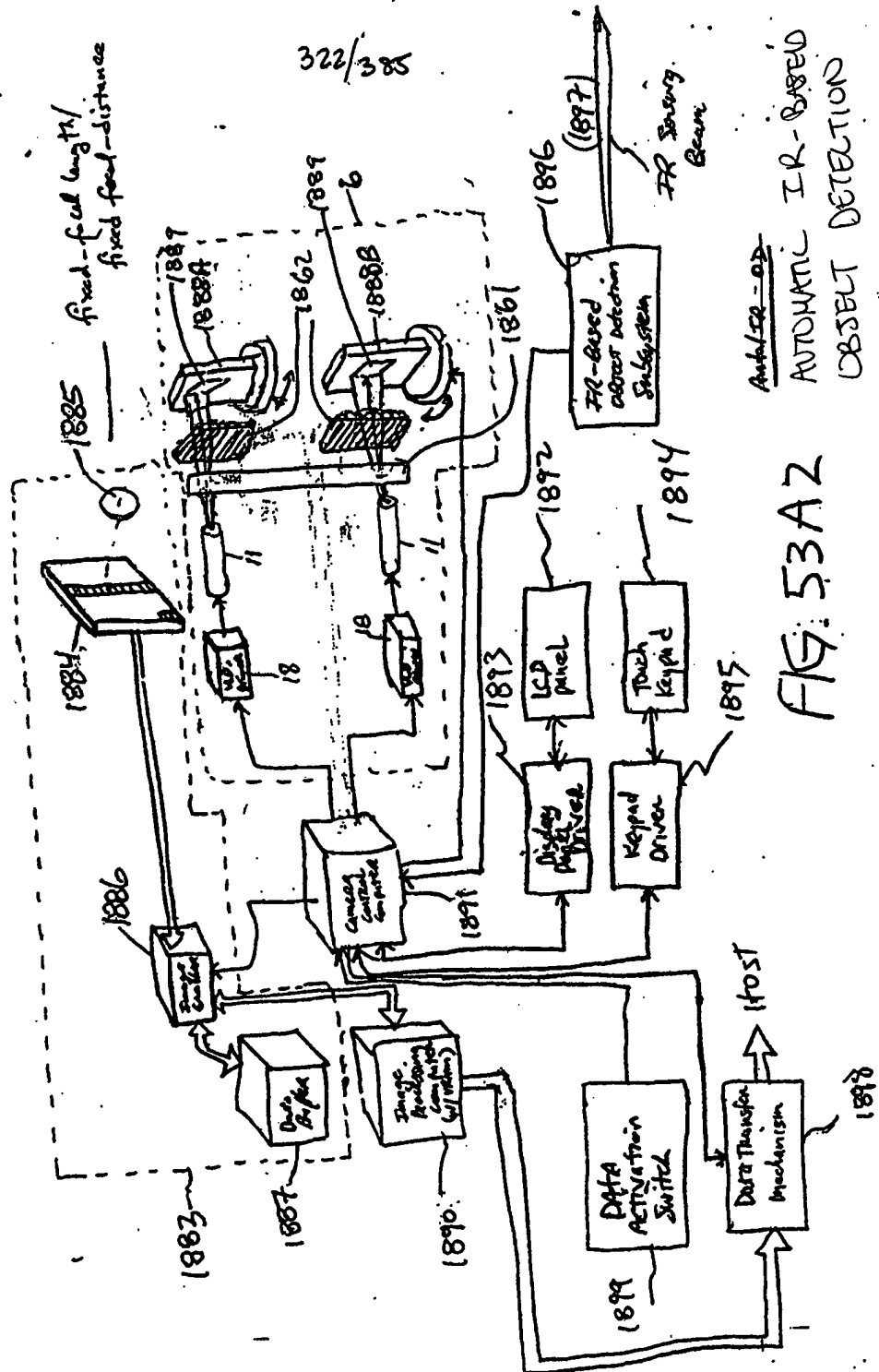


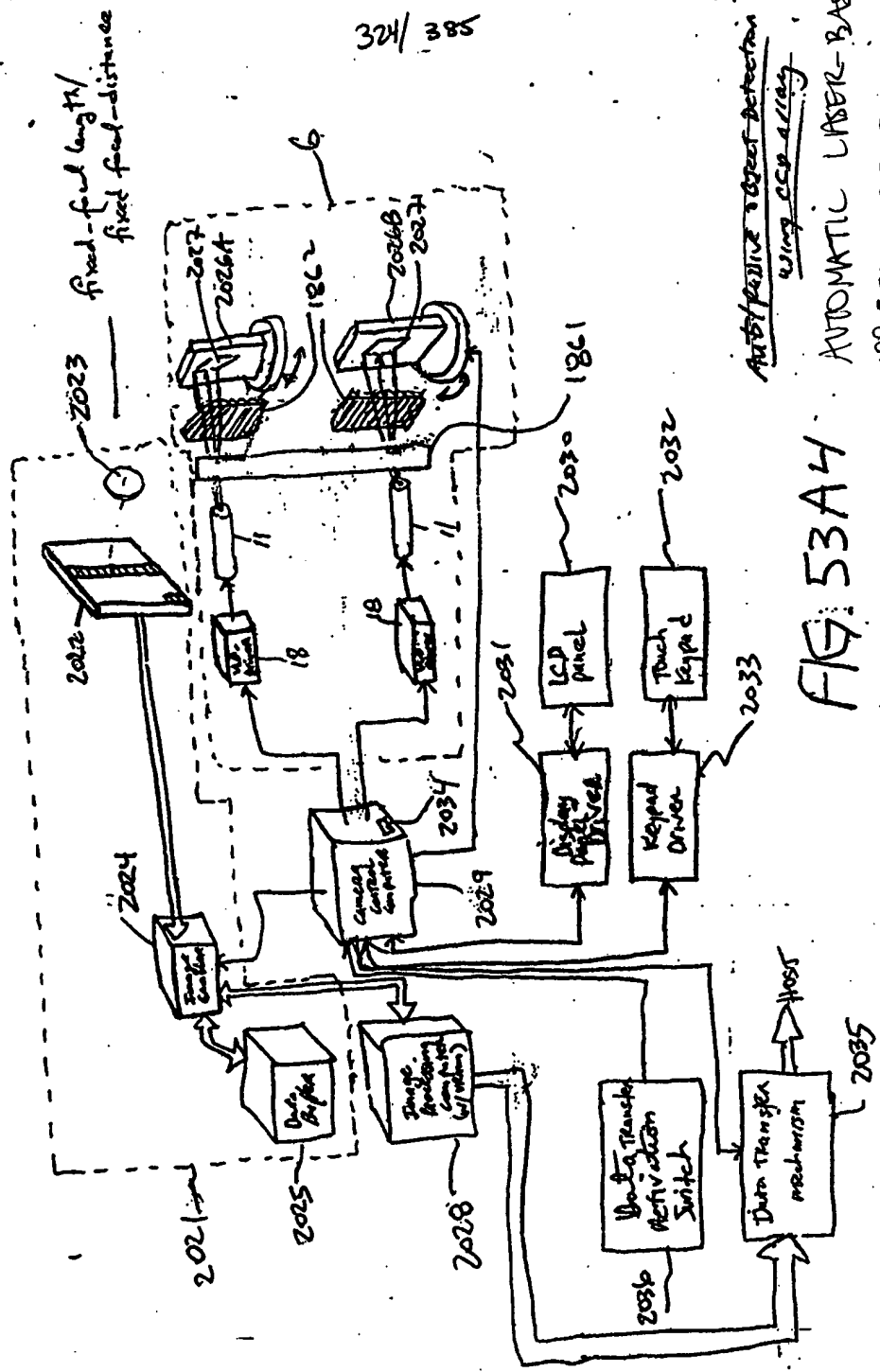
FIG. 53A1

1880



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2020 →



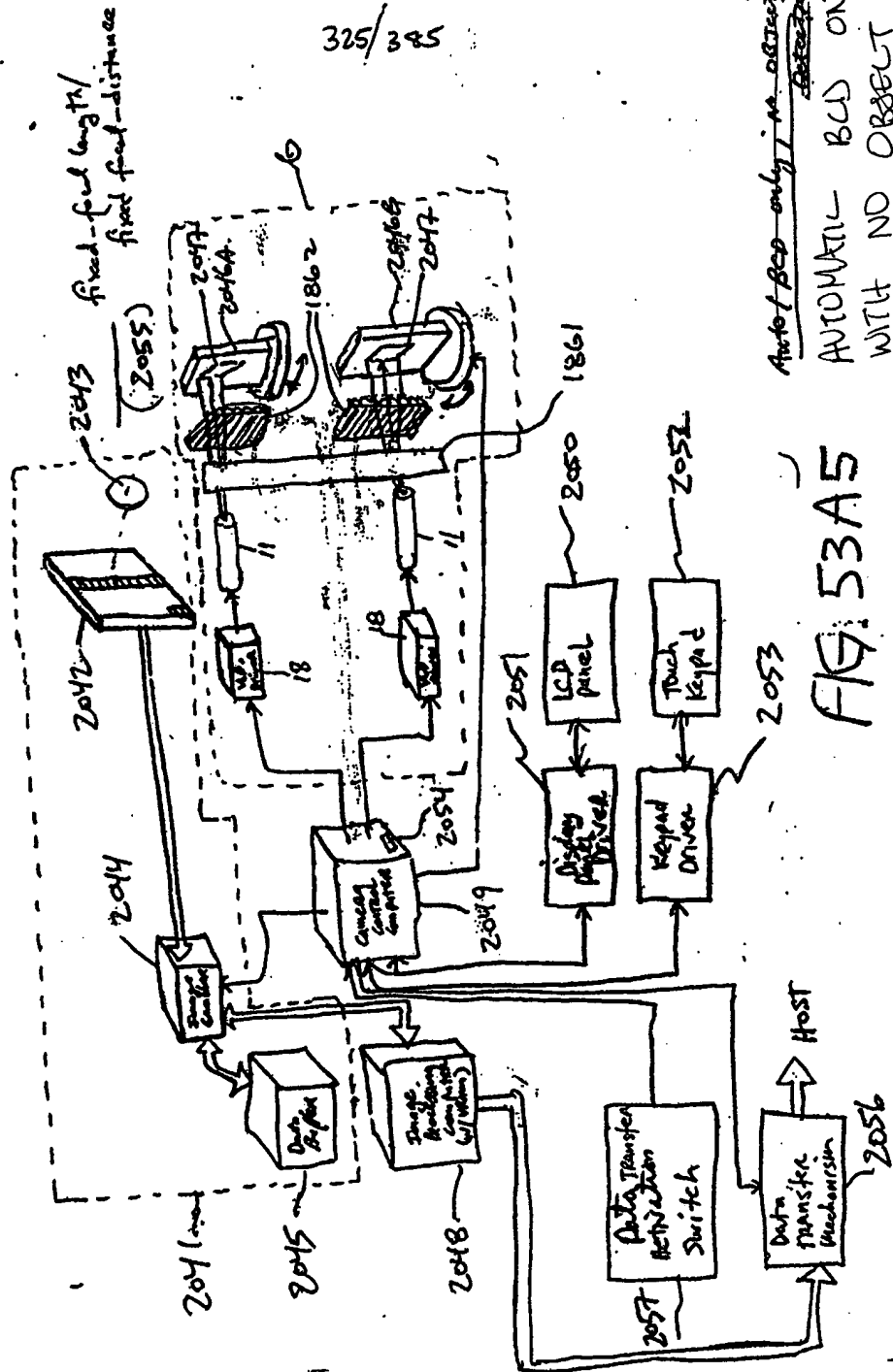
Auto/Passive Object Detection
 using CCD array

FIG. 53A4

AUTOMATIC LASER-BASED
 OBJECT DETECTION
 USING LCD ARRAY

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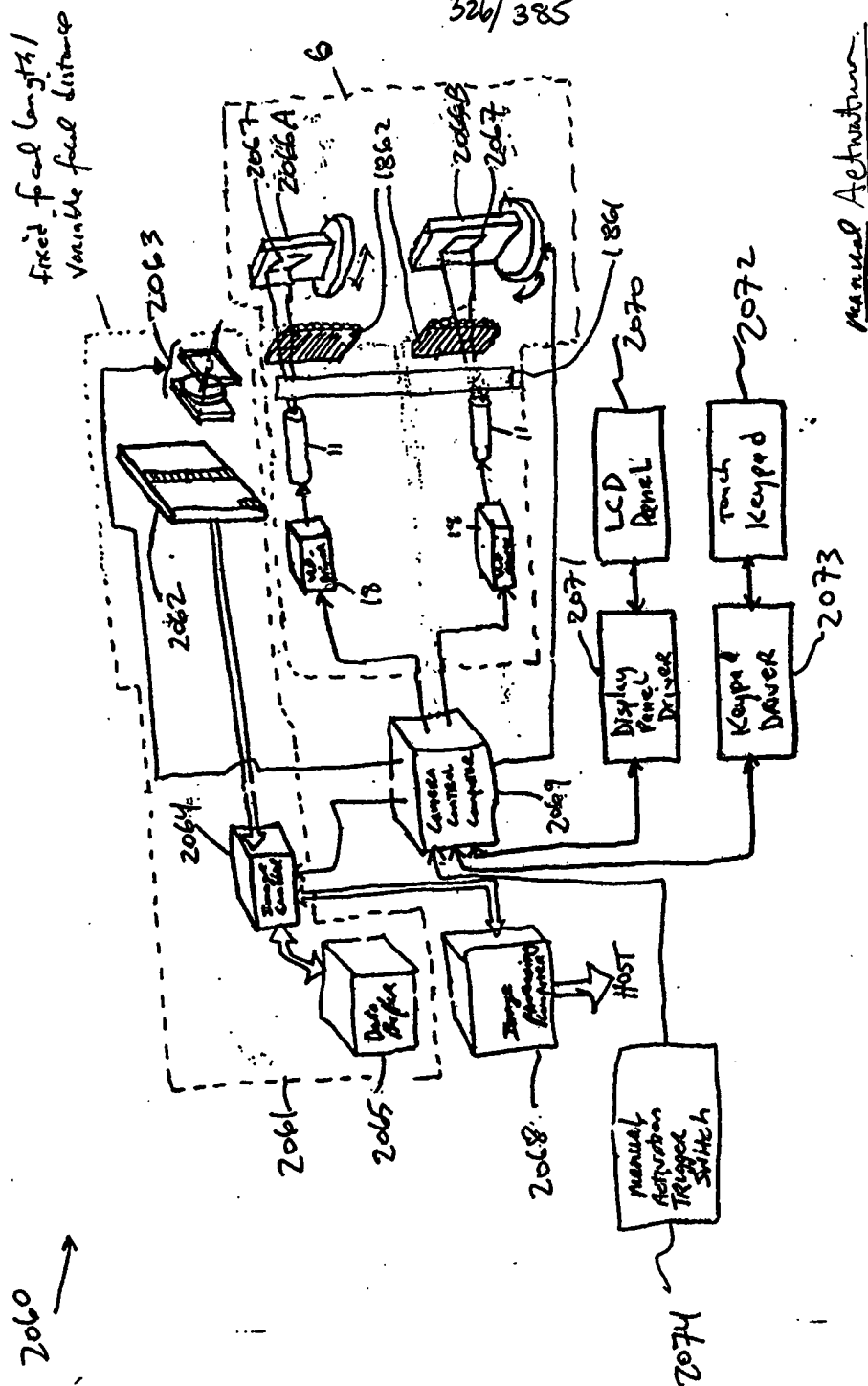


Auto / BCD only / no object
 AUTOMATIC BCD ONLY
 WITH NO OBJECT
 DETECTION

FIG. 53A5

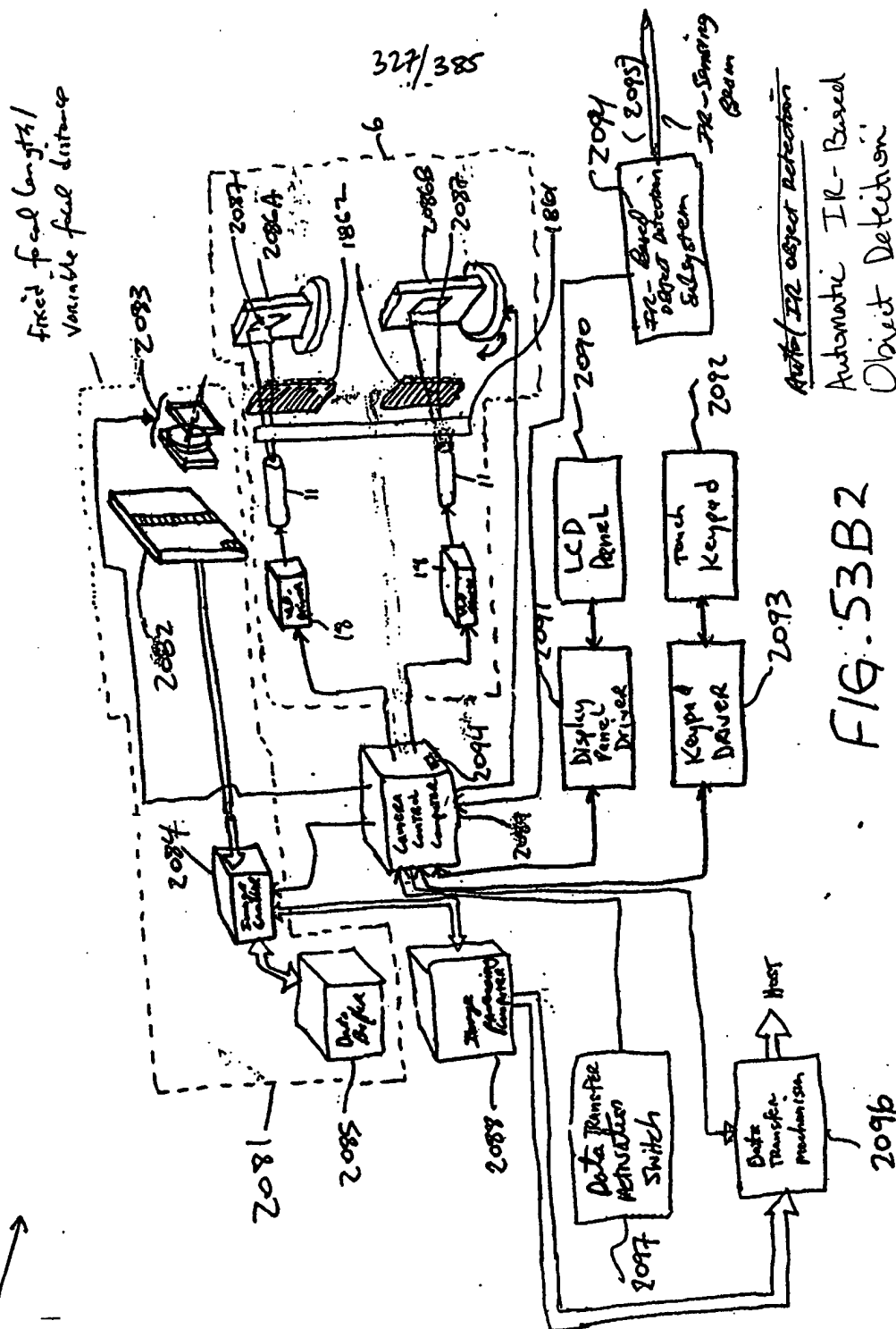
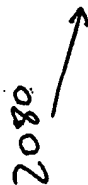


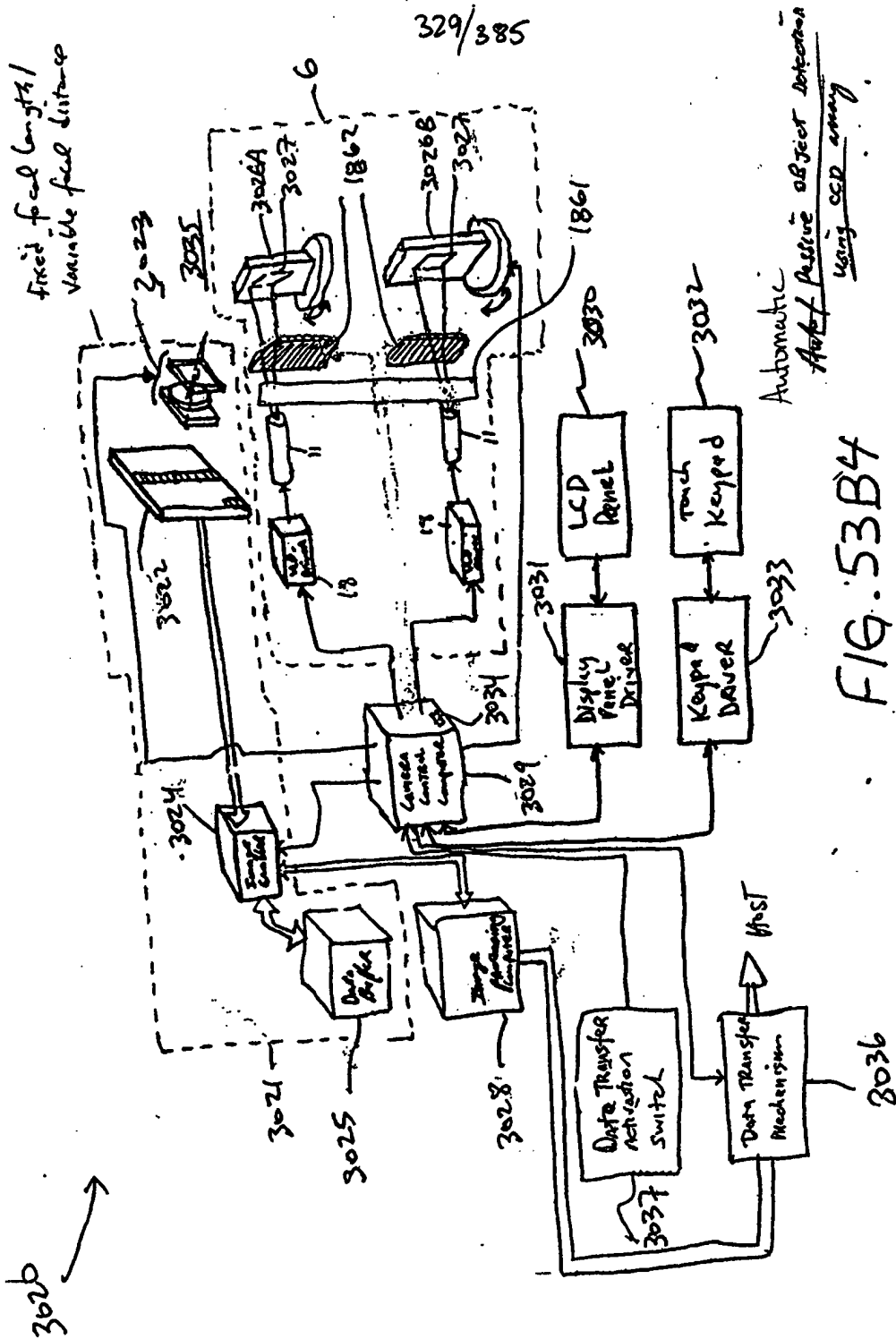
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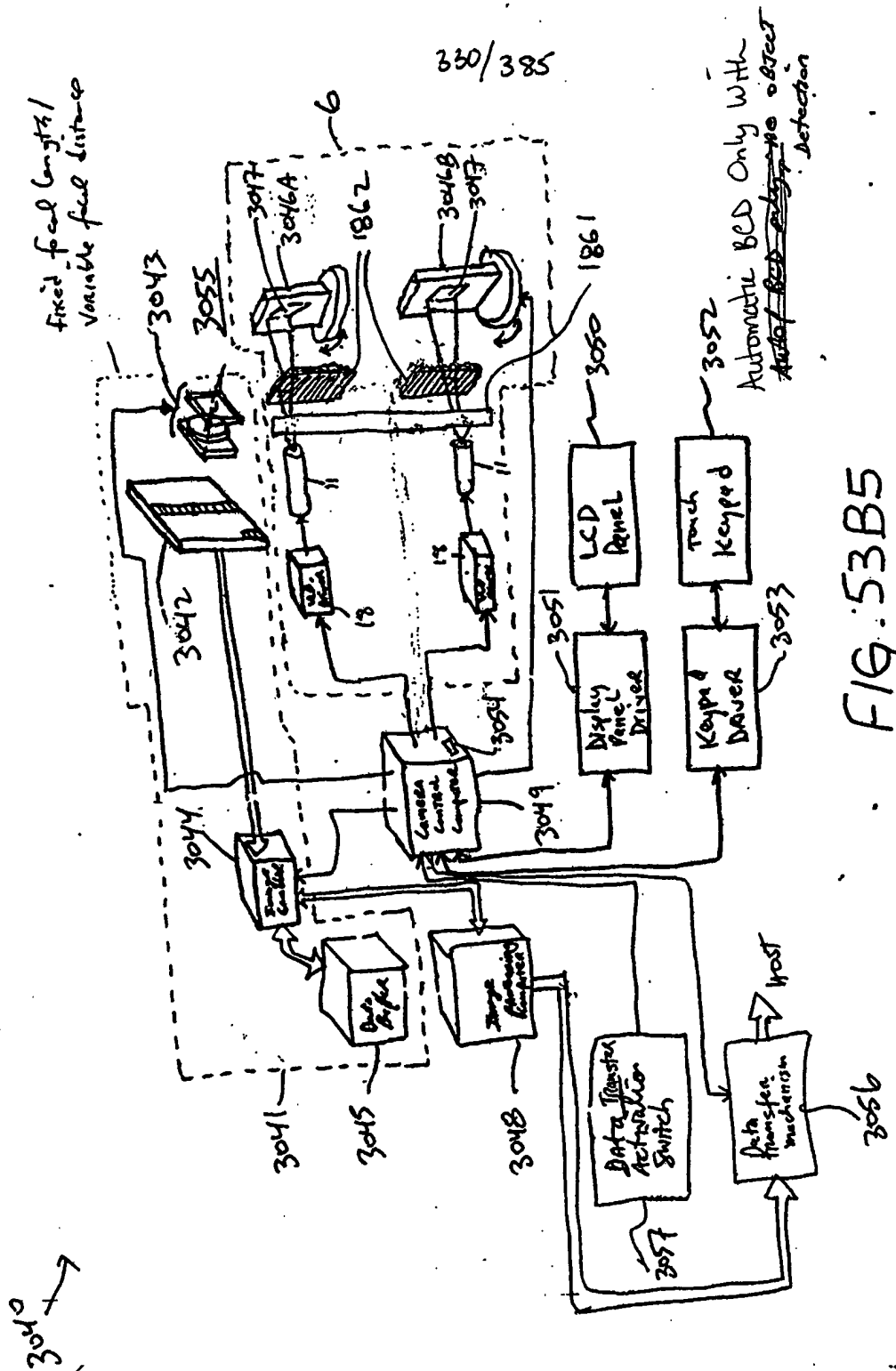


Manual Activation.

FIG. 53B1







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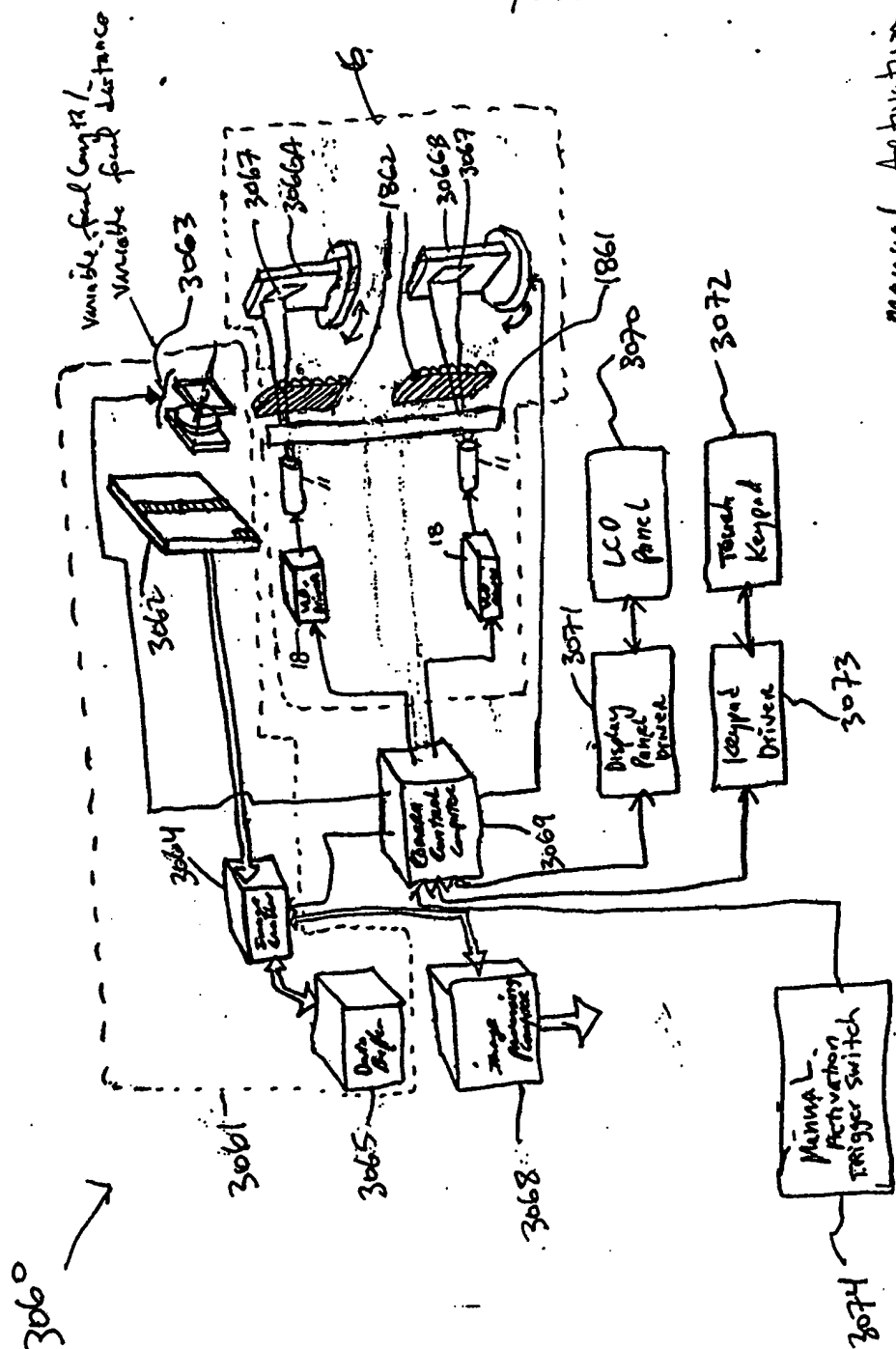
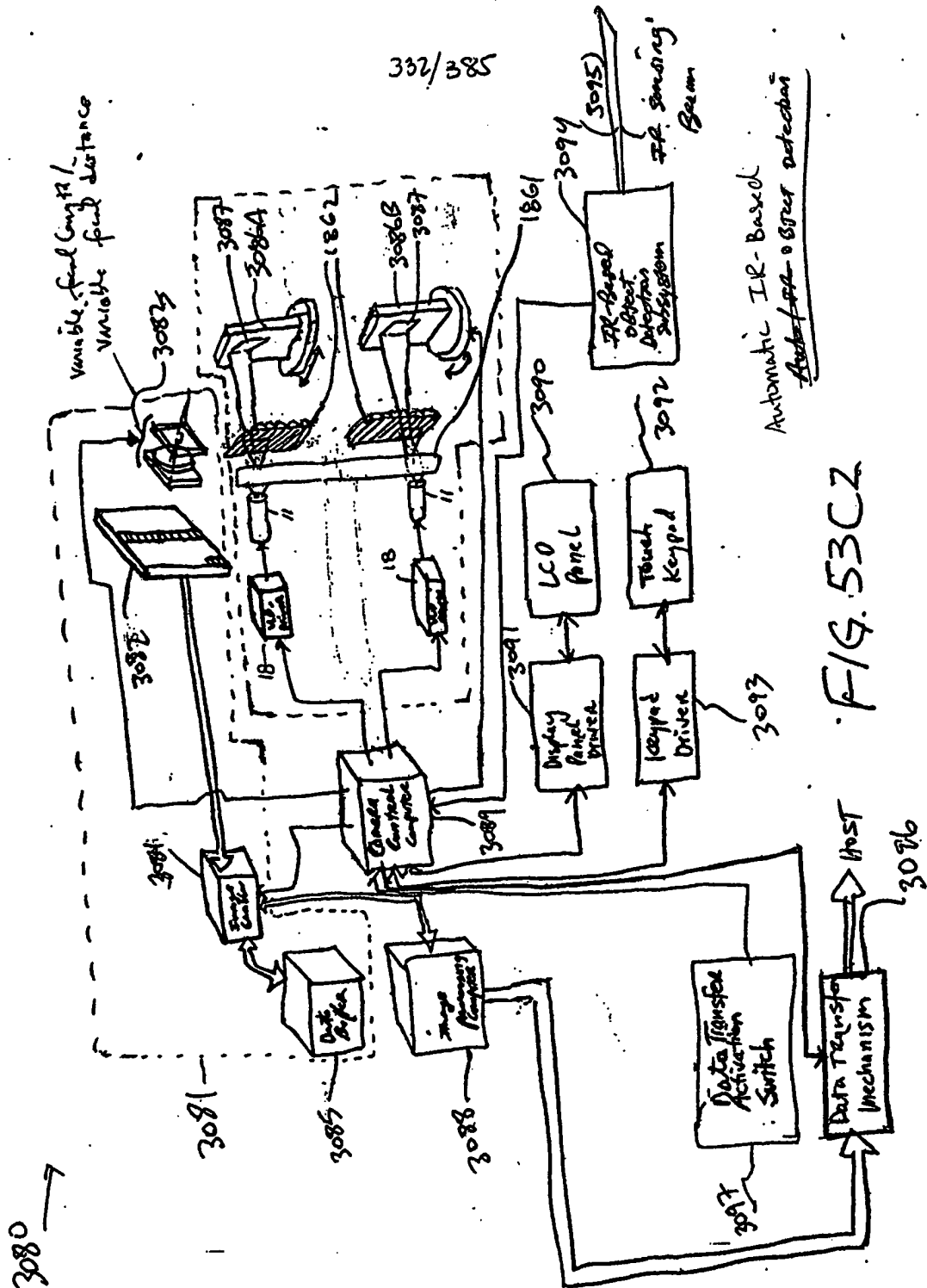


FIG. 53C1

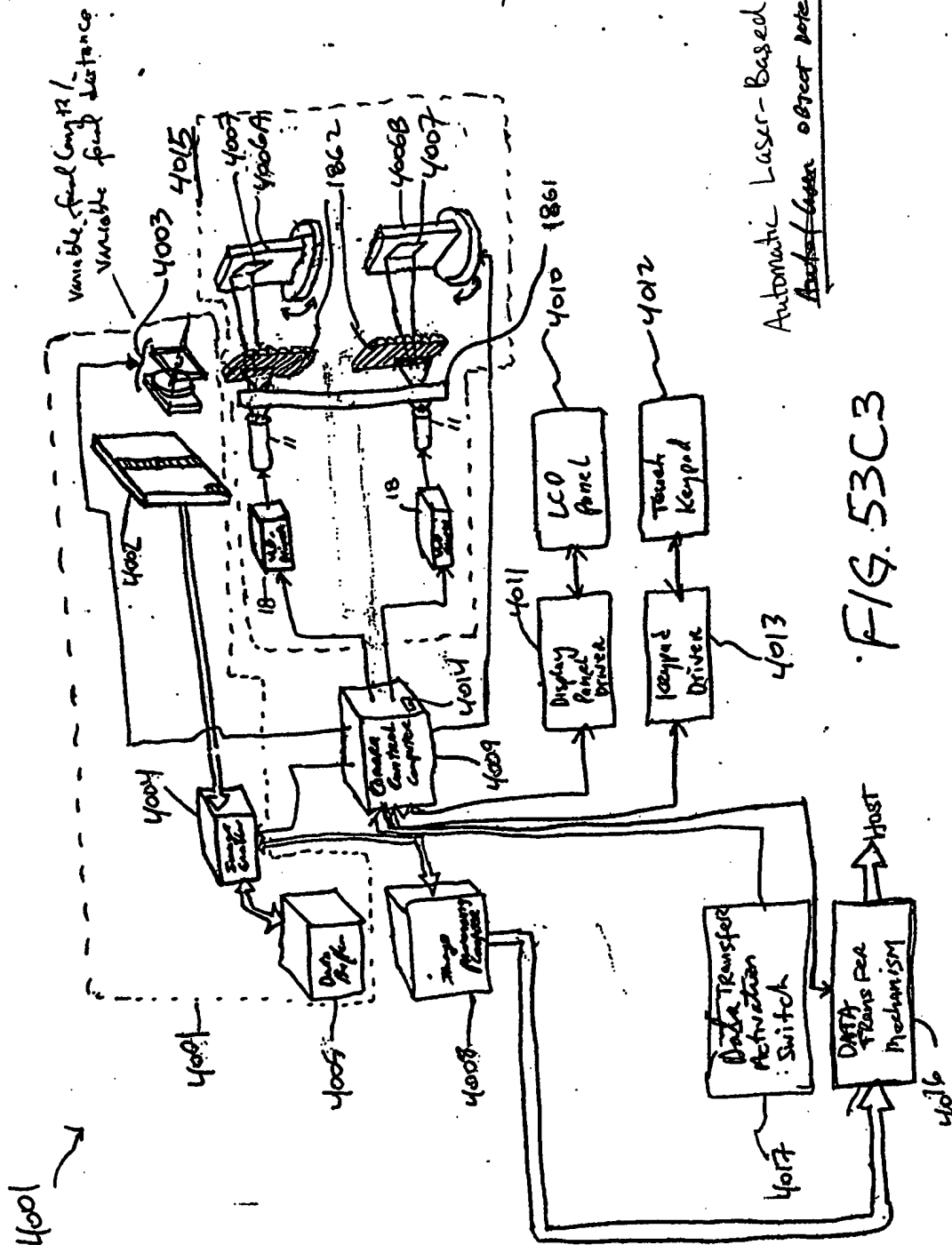
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Automatic IR-Based
Robot for object detection

FIG. 53CZ

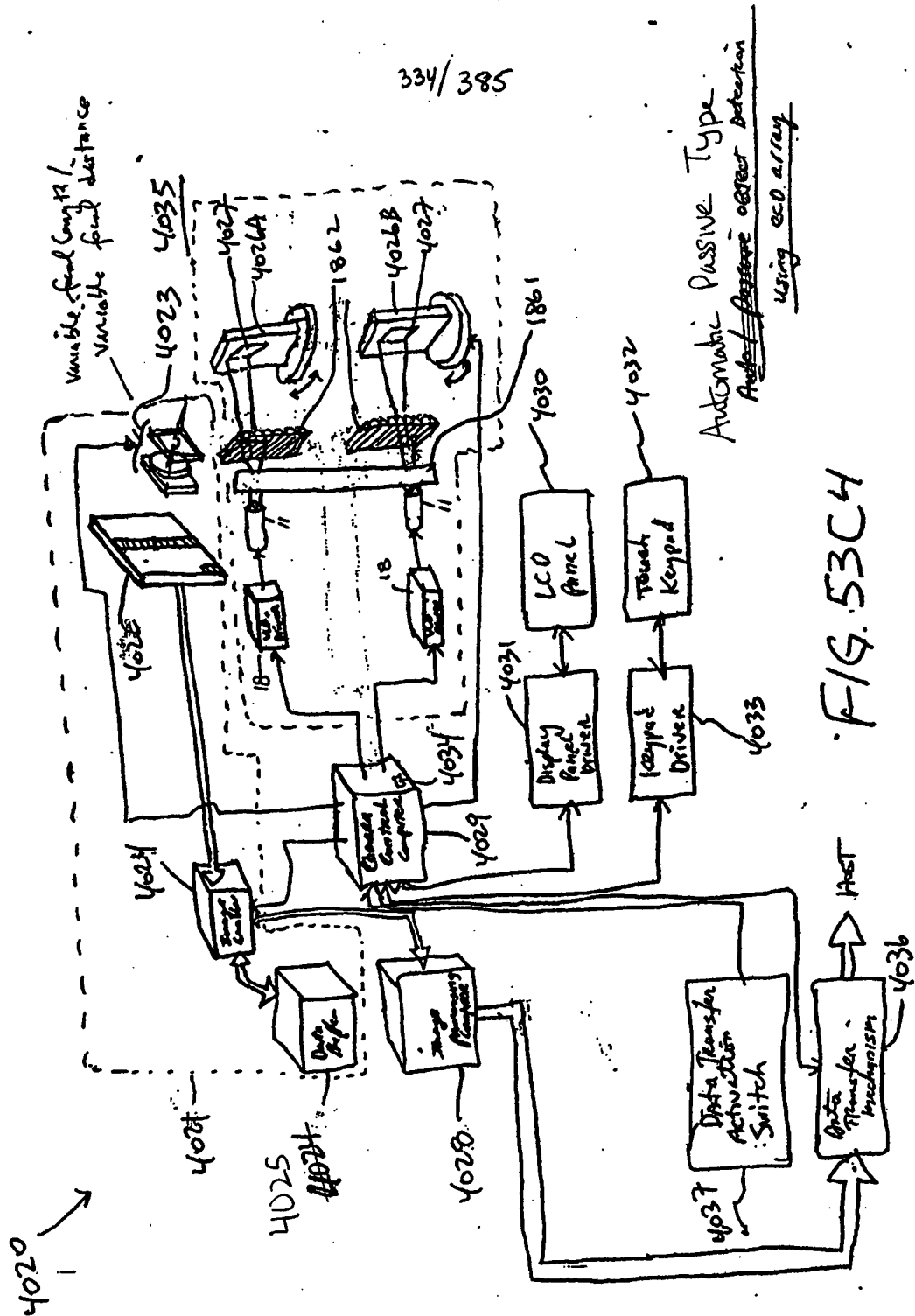
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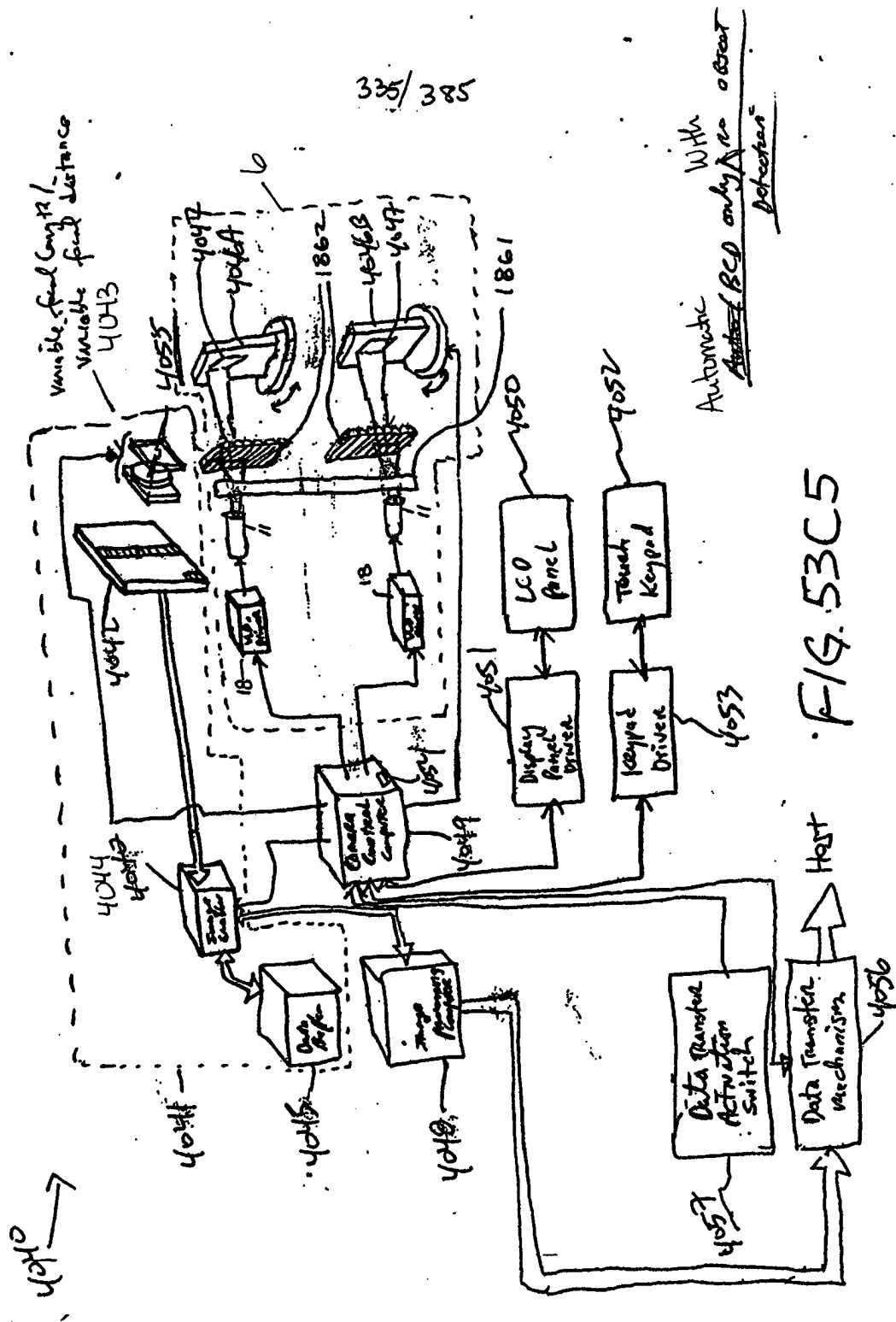
Automatic Laser-Based
 Object Detection

FIG. 53C3

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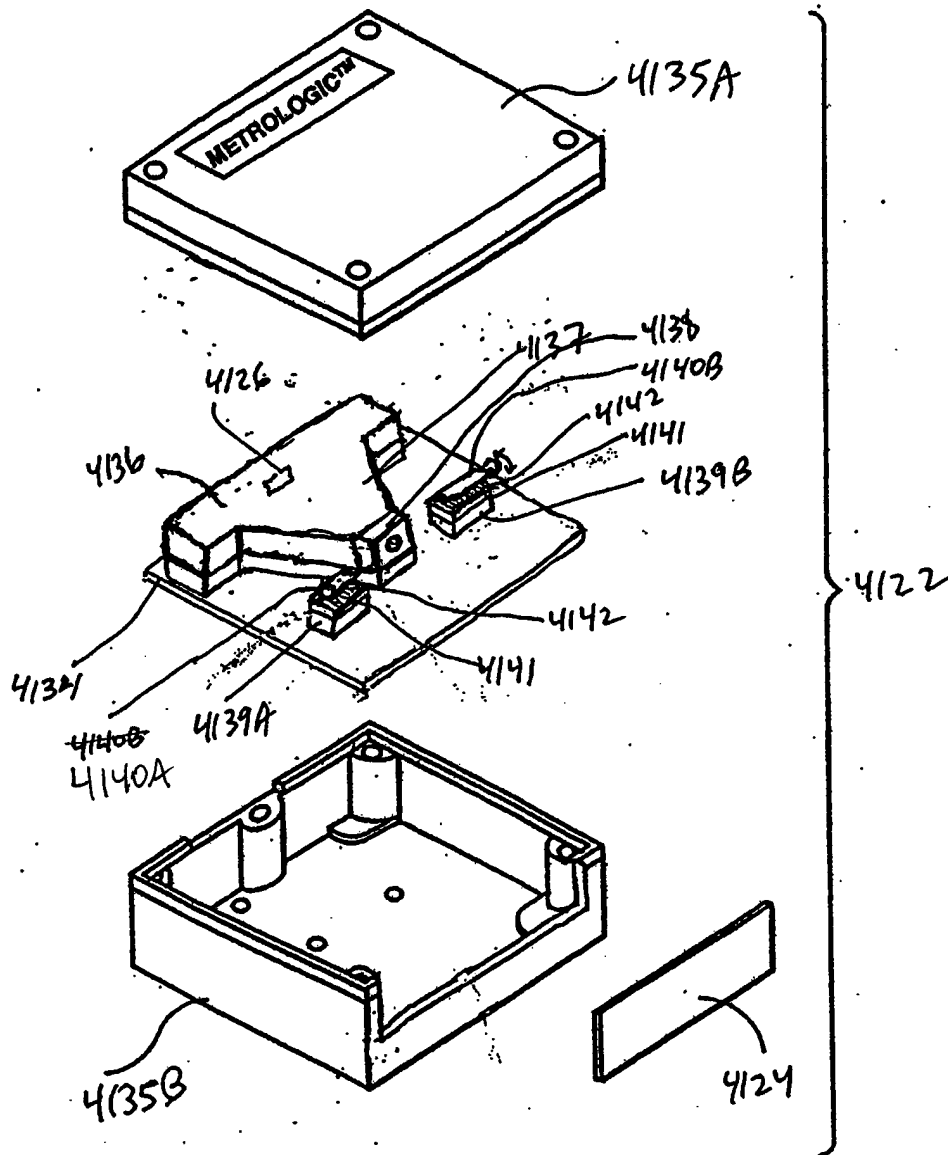


FIG. 56B

DM
Fig. 1I 7A-7C

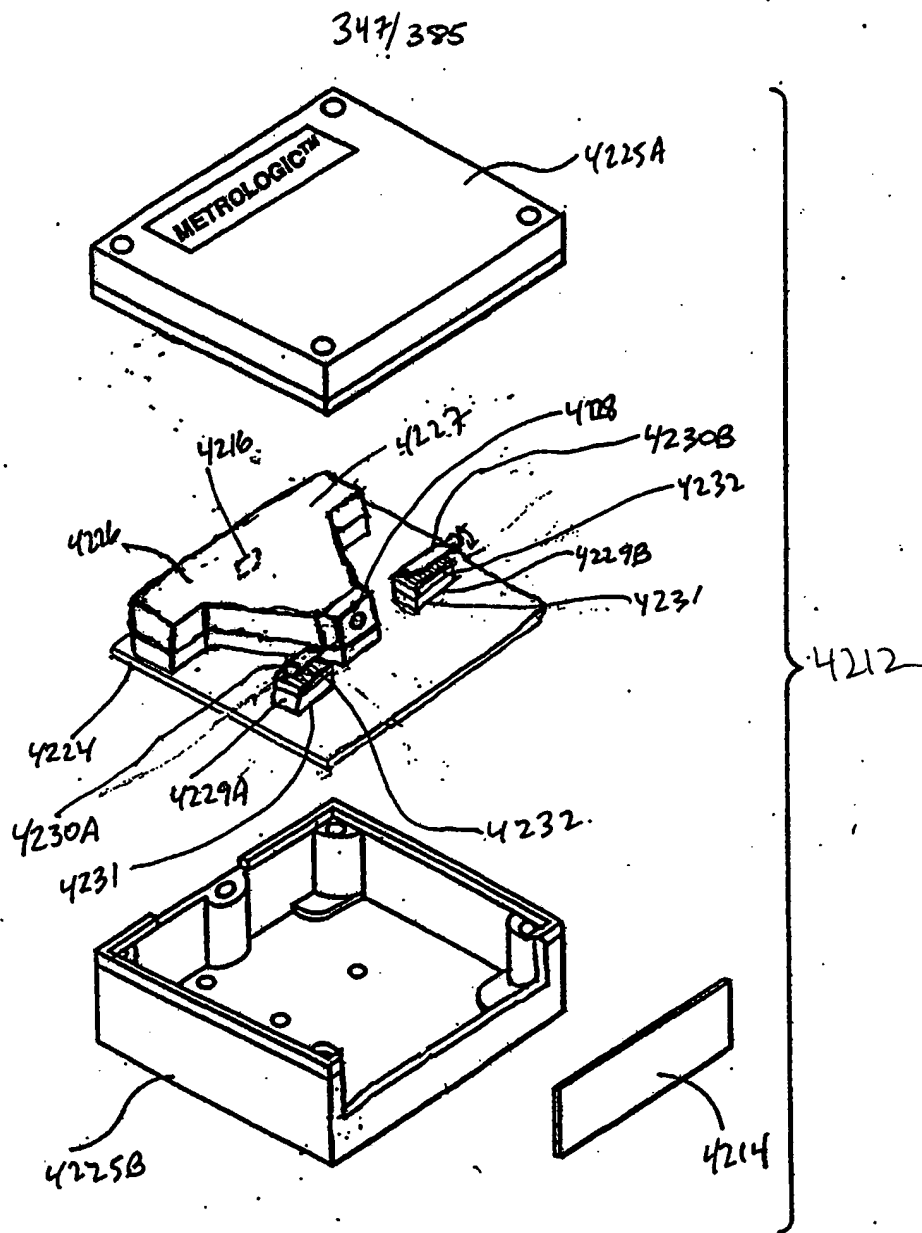


FIG. 59B

WLLD
Fig. 1E15A-15B



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4290
4270

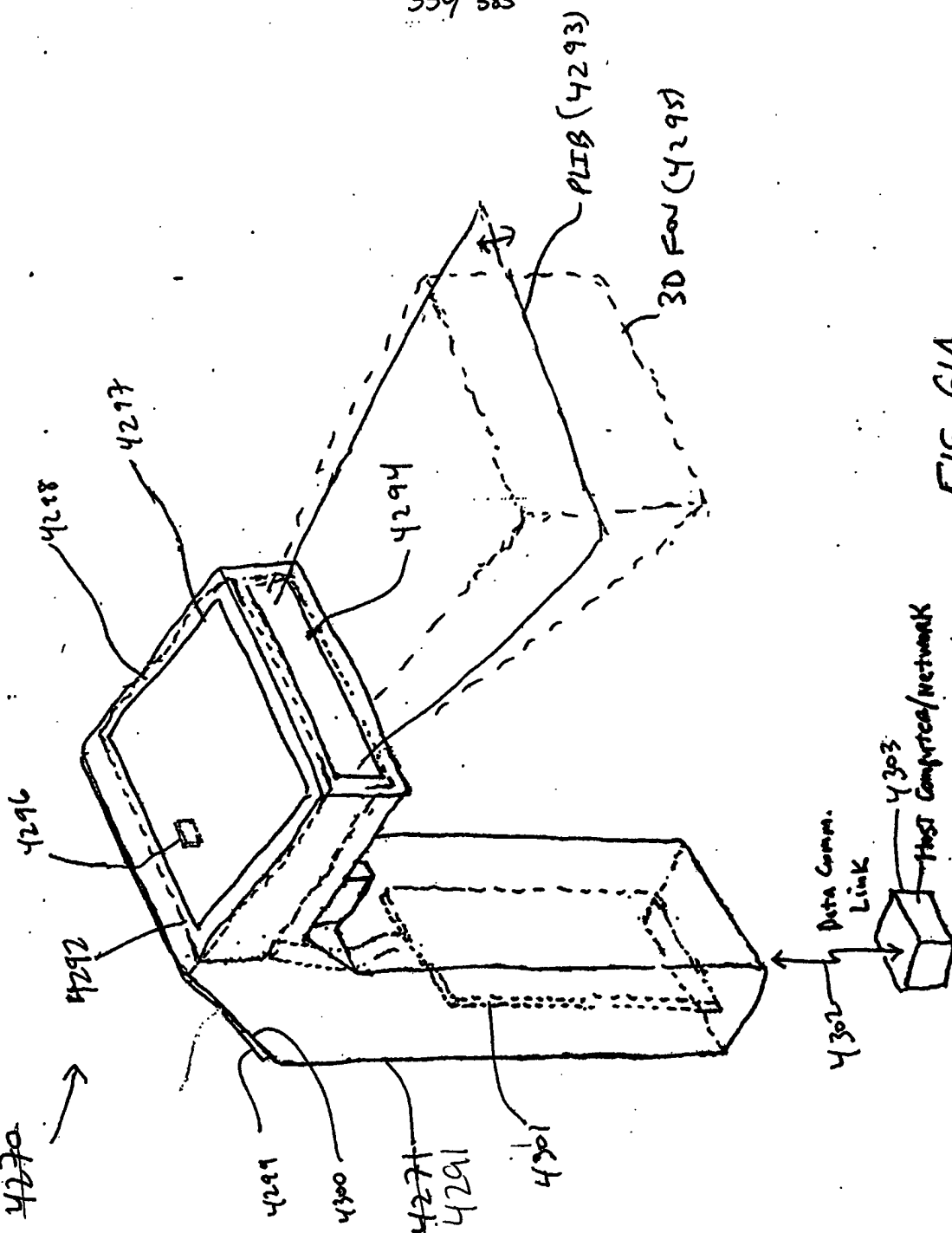


FIG. 61A

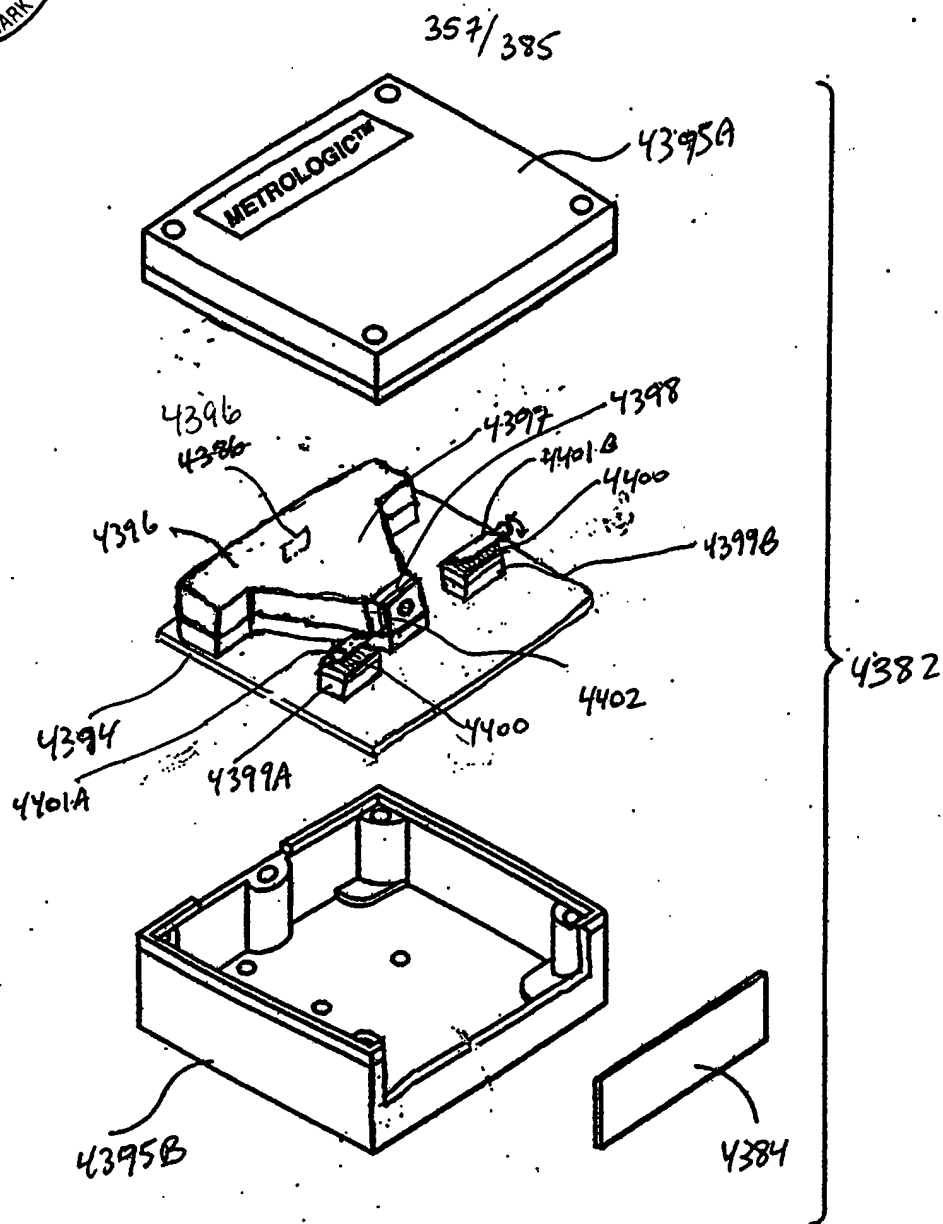


FIG. 64B

* E-optical
Shutter Buffer
DP Lens
Gy-1E24A

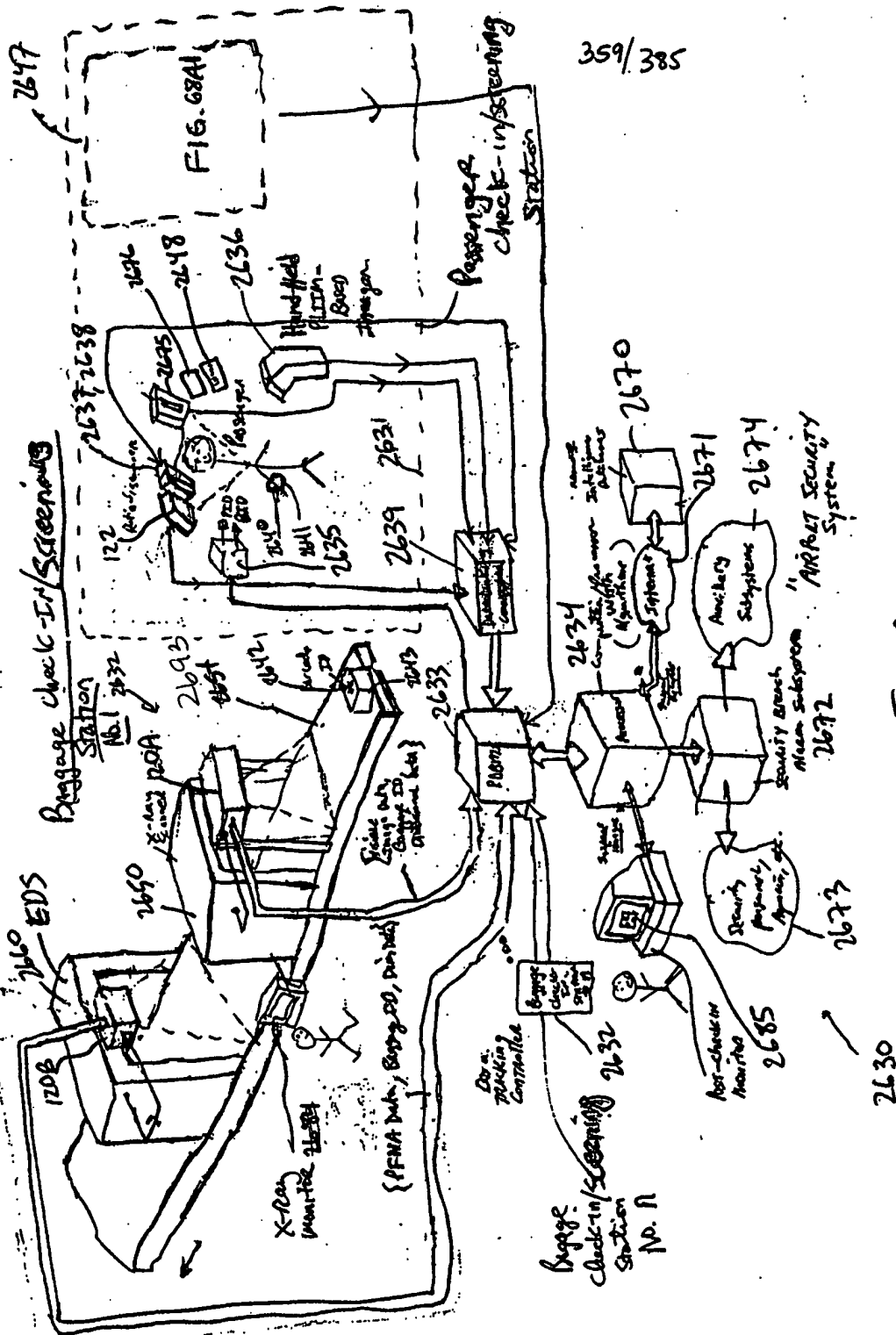


FIG. 68A
 FIGS. 68-1 through 68-3

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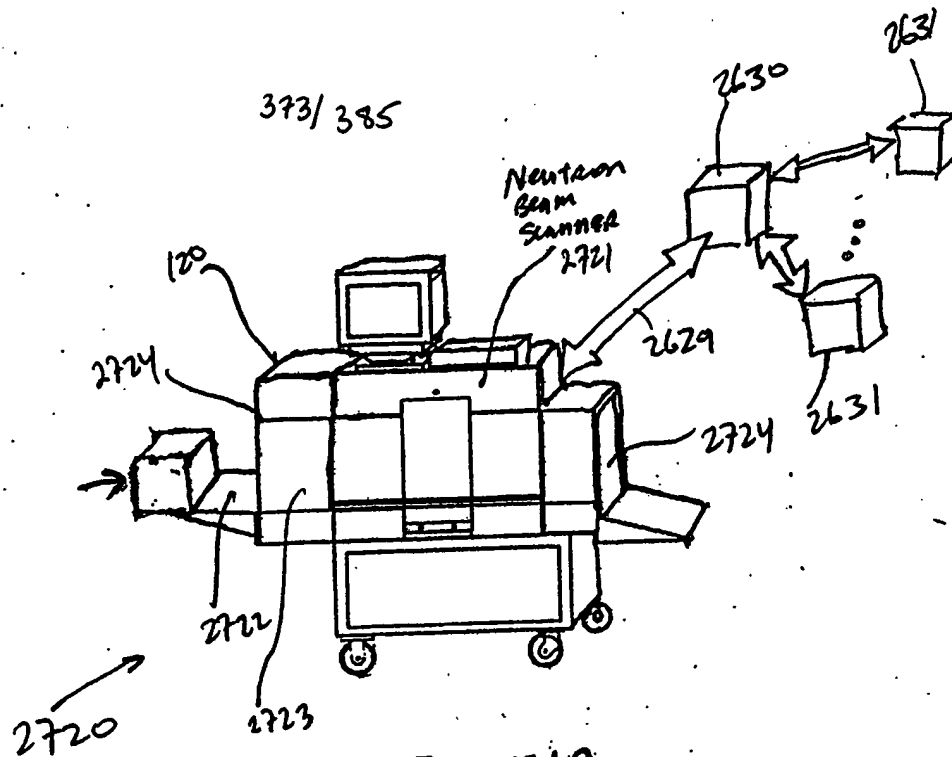


FIG 71A

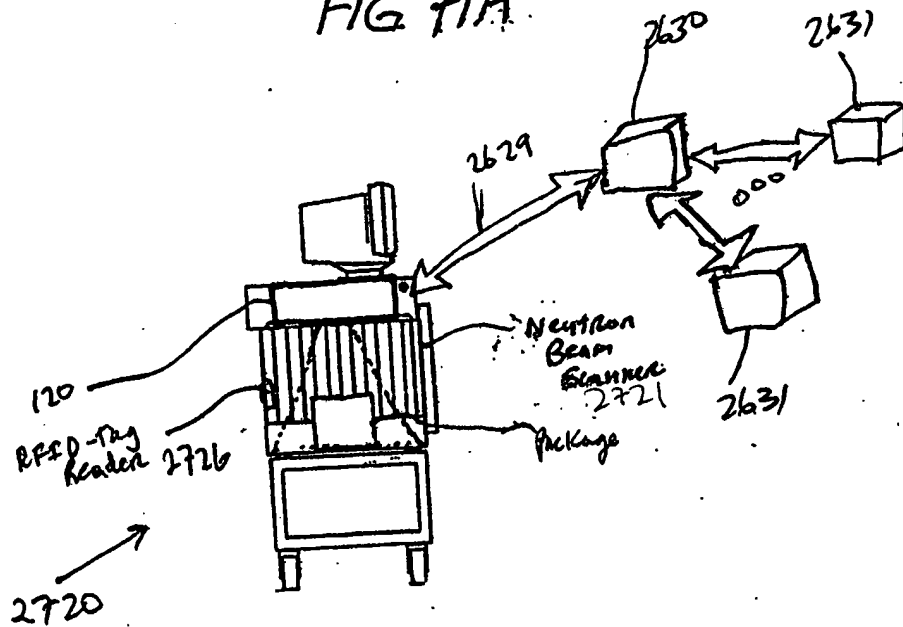


FIG 71B